

DigiNussInfo - Experiment to monitor the quality of food processes and inform consumers at a high level



CONSORTIUM

Bionuss (Hungary)

Innoskart (Hungary)

PARTICIPANT AS TECHNOLOGY PROVIDER

Seacon Europe (Hungary)

The DIGINUSSINFO INNOVATIVE EXPERIMENT AIMS TO IMPLEMENT EFFECTIVE PRODUCT INFORMATION in the value chain based on measurements. The solution to be developed will implement the processing and unified recording of data generated at suppliers during production, while enabling the use of IoT technology and the integration of smart metering/data collection equipment.

AN IT SYSTEM THAT INTEGRATES THE STEPS OF THE SUPPLIER ACTIVITY AND THE PRODUCTION PROCESS INTO ONE SYSTEM will create digitisation at the SME level, covering the cultivation, processing and transformation of raw nuts into products. Quality assurance regulation will also be taken to a new level with digital traceability, as digital evidence will be used to prove origin and quality.

ROLES IN THE PROJECT

The consortium has all the important knowledge, experience and resources to implement a solution and develop a service which is a perfect fit for the food industry and can handle its complexity and variability but is at the same time adaptable to the different production technologies.

BIONUSS

The food producer company as food industry professional of the experiment provides the production environment, all relevant raw material or product information and ensures the resources and circumstances for testing the solution in the manufacturing.

INNOSKART

The DIH has concrete roles in project management and in specific activities such as organization, cost calculation and feasibility study, design of a sustainable business model, dissemination and communication

SEACON

Implementing the technology the service provider will build a database and process all incoming production data into valuable information. The information will be transformed into reports and will be used for the process optimization by Seacon.

EXPERIMENT

Bionuss Hungary Ltd is a manufacturing SME, which is engaged in the production and processing of organic nuts and nuts in shell. This experiment which will be carried out in close cooperation with the Innoskart-DIH, aims to bring the company a SIGNIFICANT IMPROVEMENT in the actual PRODUCT INFORMATION AVAILABLE IN THE VALUE CHAIN: in addition to their wholesale partners, they also get closer to consumers they cannot reach directly. The experiment will result in real-time information to support consumers' perception of the quality of their products.

EXPECTED RESULT

The result of this innovative experiment is the integration of a novel digital technology measurement and analysis in the processes of the Bionuss in the food industry, allowing them MORE ACCURATE INFORMATION ABOUT THE PRODUCTION. In parallel, European DIH-World Network will grow and Innoskart DIH will be able to apply skills learned through the digitalization collaboration with the SME and also through DIH Academy. The technology experiment will not only support (SME) to use (ICT) technology in their business operation, quality assurance and management but also will boost interactions and cross border cooperation among DIHs and European SMEs.

NOVELTY

The novelty of the experiment lies in the fact that we are laying the foundations for a MONITORING SOLUTION FOR THE ENTIRE PRODUCTION (food production) CHAIN of any length, with a pilot capable of handling 2-3 levels by the end of the project. The method can be used at any level of the chain, and the number of levels can be extended and the range of products handled expanded. A new requirement for the IT support system is that it should also have smartphone functionality and provide a controllable way for customers to retrieve detailed product input and quality data, whether they are a catering kitchen, a restaurant, a bakery or a private person.

NEW APPROACH

A new approach is that the use of the system can be extended to all levels of the production chain, i.e. it can be implemented in a single company, but also support group-wide operations. The planned solution - in line with the basic idea of the tender - is to increase the degree of digitalisation in the production of Bionuss Hungary Ltd. The focus is primarily on gathering and processing information along the entire product chain ("from farm to fork") in order to trace the ORIGIN OF THE PRODUCT and the raw materials and their IMPACT ON QUALITY.

TECHNOLOGY

The technology used is an integrated, modular solution that provides state-of-the-art IT SUPPORT THROUGHOUT THE FOOD CHAIN to provide us with sufficient information on quality parameters from raw material cultivation to processing to the finished product to the user and customers - ensuring complete PRODUCT IDENTIFICATION AND TRACEABILITY.

The focus is on the objectives of EUROPEAN FOOD SAFETY POLICY: the protection of HUMAN HEALTH and CONSUMER INTERESTS - food hygiene, food contamination, food labeling, veterinary and phytosanitary changes, genetic modification.