



Smart Tags
for Improving Consumer Interaction
in Food Value Chain



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SMART TAGS

The Smart Tags communication project is set to increase consumer trust towards food products, by using smart tags with functionality and by sharing information about the food product value chain during the life-cycle of the product, enabling novel service concepts and interactivity between consumers and the food industry.

The project is supported by EIT food which is Europe's leading food innovation initiative, which is working to make the food system more sustainable, healthy and trusted.

EIT food recons that we need to future proof our food. So we are on a mission to build an inclusive and innovative community where the consumer is actively involved. It is very important to engage the public and get them actively involved in the food chain so that they can become the agents of change in the food systems.

Selected service concepts will be pre-piloted in the project during pilot; suitable Smart Tags will be printed for each concept and the use of tags will be evaluated. The project will communicate to a wide audience about the technological possibilities to increase transparency in food industry, and to increase public interest, and consumer involvement and trust.



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The aim of the Smart tags communication project is to increase consumer trust towards food products by sharing information with Smart tags, that contain information about the quality or authenticity of the product and enable also sharing of information from the food value chain. It will also facilitate consumers and stakeholders to create an interactive connection; where consumers are able to give feedback, ask questions, co-develop the products and services. That could result in better understanding by the food industry of customers' needs and preferences, resulting in more targeted product development and marketing.

In a highly globalised world where food value chains are often long and complicated, consumers find there is a gap between the level of information they want on food packaging to make informed purchase decision, and what is currently displayed there by law and regulations. They are often interested in ingredients used, product sustainability, food miles, authenticity, transportation, shelf life, and how recyclable packaging are. They also often find nutritional information hard to interpret and product are often decorated with slogans with vague phrases or words like "natural" or "healthy" – without supporting those slogans with facts and figures.



FOOD PRODUCTS PACKAGING D VALUE CHAIN TRANSPARENCY?

What are Smart tags?

Smart tags can mean a visible or electronic marker with environmental sensing functions like functional ink, sensors or indicators, combined with software intelligence.

Smart tag can have different properties and functions. It can be a simple barcode that can be read by mobile phone allowing consumer or them to access more relevant and real-time information about different food products and to communicate with the producers or other stakeholders in the food value chain.

Smart tag can also be an indicator with a visible colour change that indicates changes in the product surroundings. When some parts or areas of a 2D barcode are printed with the functional ink, the scanning result of the code changes dynamically when the state of the functional part changes. When conditions of the surrounding environment change, such as temperature, gas composition, lighting or humidity, parts of the barcode can appear, disappear or change colour, resulting possibly in change of scanning results or just to give consumers indication of changes in product surroundings or inside the product packaging itself.

Project outcome

The outcome of the project will introduce smart tags solutions on selected products to consumer that might increase the trust and knowledge of the food value chain for them and provide new experiences of interactivity with the other stakeholders in the food value chain. The food industry can create added value for the consumers and explore when, where and how the consumers are willing to utilize the data available with help of smart tag technology.

The consortium

The Smart tag project is coordinated by VTT Technical Research Centre of Finland but the consortium consists of research partners, food industry and technology developers. The partner are University of Reading (UK), University of Warsaw (Poland), KU Leuven (Belgium), Matis (Iceland), AZTI (Spain), DouxMatok (Israel) and Maspex Group (Poland). The Smart tag project is supported by EIT Food is Europe's, which is the leading food innovation initiative, working to make the food systems more sustainable, healthy and trusted and is. EIT Food is supported by the EIT, a body of the European Union.





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