



# FOODINTEGRITY

## Ensuring the Integrity of the European food chain

613688: Collaborative Project

### Seventh Framework Programme

**KBBE.2013.2.4-01: Assuring quality and authenticity in the food chain**

### **Deliverable: D17.1**

Title: Work Package Scoping Document

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Date of preparation: 28 March 2017

Period covered: Mo 36-39

Status: version 2 (Nov 17)

Dissemination level		
PU	Public	X
PP	Restricted to other participants	
RE	Restricted to a group specified by the consortium	
CO	Confidential, only members of the consortium	



*The project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement No. 613688.*



## **Deliverable 17.1 Work Package Scoping Document**

### **1 Description of Deliverable**

Deliverable D17.1 is produced as part of WP 17, which aims at a feasibility study on information analysis and sharing along the food chain to identify emerging food integrity issues. This deliverable sets the scope of the work package.

### **2 Achievement of the Deliverable**

Work Package Scoping Document

#### **FEASIBILITY STUDY INFORMATION SHARING AND ANALYSIS ALONG THE FOOD CHAIN TO IDENTIFY EMERGING FOOD INTEGRITY ISSUES (WP 17)**

##### **Introduction**

*Food Integrity: “the state of a food being whole, entire, or undiminished or in perfect condition”.*

This is the opening sentence of the EU Food Integrity project. The word integrity semantically has two meanings: whole and honest. The scope of the project, and WP17 specifically, addresses (and should address) these two sides of food integrity. It is for consumers and all stakeholders in general important that food products are safe and authentic and that quality fulfils requirements and demands.

The focus in this project is primarily on where the authenticity of a food product is compromised, which mostly means that labelling and description of the product does not comply with the actual product. The consequence is that the price paid is not justified and as such the product as sold was probably a deliberate and economically motivated adulteration. The actual food product is not per se of inferior quality or unsafe, but the criminal intention and non-transparency render the food product uncontrolled or unassured to any standard. Therefore, when food integrity is compromised in any way, the safety, quality and authenticity of products or products derived can be compromised.

It is often stated that food fraud is one of the oldest crimes, however the economic impact in current times is probably bigger than ever. Also, the potential effect on consumers (sometimes on health, but always on trust) is bigger than ever. The importance of identifying food fraud (early) is thus easily demonstrated. For this early warning or early signalling systems exist or are being developed, the difference being the timing where the signals are noted and picked up. In all cases it is information that needs to be gathered and interpreted, and prepared for further action. Information from many sources and interpreted from many angles are around but some sources will be unavailable to some or most interested parties.

An important source of information is the in-house knowledge, data and interpretation of it in the food industry and perhaps other stakeholders in the food network. At the same time

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the industry information is also the least accessible source. It is the purpose of this Work Package to study the feasibility of sharing and analysing this information.

Work Package 17 is one of the added commissioned projects in FOOD INTEGRITY. The core research question of the WP is to study the feasibility of sharing and analysing information on potential (or actual) food integrity issues between stakeholders to allow early warning, potentially prediction, and optimal information analysis and management. This paper sets the scope for the study, fig. 1 represents the individual (sub)tasks of WP 17 and their interrelationships.

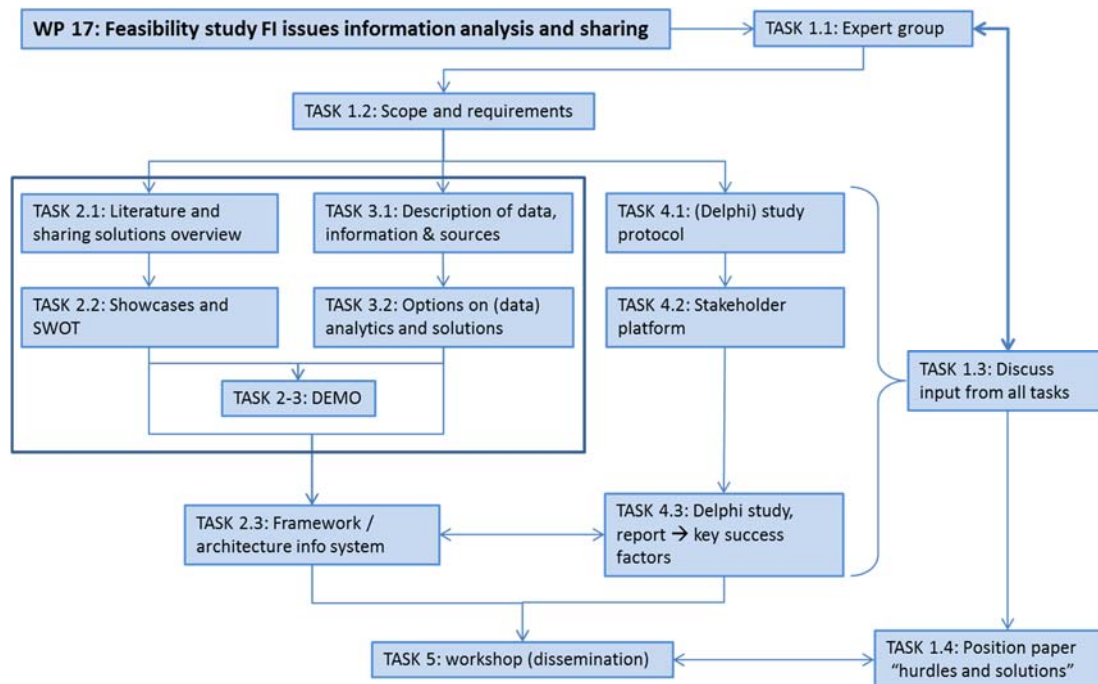


Fig 1: WP 17 in a nutshell

When food integrity is compromised it will damage trust with the consumer towards producers and authorities; it will hurt the food production chain economically. Awareness, alertness, preventive action and early reactive response are key for all stakeholders. It is our opinion that all of these characteristics benefit from easy and early communication and data sharing between all stakeholders. Our study within the project is targeted at two objectives:

1. To demonstrate the technical possibilities of sharing information without competition issues and the potential of information analytics to identify food integrity issues at an early stage.
2. To research the actual feasibility (and willingness: identify hurdles!) in the food chain of setting up, managing and using a system for the early identification of food integrity issues among food chain stakeholders.

[ from DOW Food Integrity, V3, 2017-06-26 ]

The WP has 5 distinct tasks run by two partners, TNO and University of Ghent.

Task 1 is the overarching task of setting the scope and delivering one important end-deliverable, and as such is responsible for keeping track of other tasks and assuring the cooperation and relationships between tasks.

Tasks 2 and 3 work closely together to outline a framework and architecture of an information sharing and analysis system for the food production chain.

Task 4 will interact with stakeholders in the food chain to identify key success factors (and hurdles) for sharing and analysis of information on food integrity issues. The added value of such a system needs to be established as well by stakeholders.

Task 5 brings together the outcomes of all tasks for discussion in a live workshop. This is a major end deliverable and from it the (final) position paper on hurdles, key success factors and solution for further elaboration will emerge.

## **Scope**

The scope of WP17 is of course primarily set by the FOOD INTEGRITY project definitions and scope. However, WP17 covers a very specific subject, as is clear from the fact that it was one of the later commissioned added WPs to the project. From experience of the WP 17 participants and co-workers information sharing in general is always regarded and judged as of great importance for all. However, the expression “practice what you preach” seems often to be disregarded. Speaking with people involved in industry and retail, being hit by issues, revealed a tendency to place the burden of sharing with other stakeholders, suppliers or authorities. We have talked to many stakeholders before and while preparing the original proposal.

To define the scope beyond the DoW the original proposal mentions the establishment of an expert group with relevant stakeholders. However, it appeared that many experts approached while initially very interested, were not available for an actual meeting. We have therefore decided to replace the specific expert group with discussions with experts at relevant occasions. The advantage being that the number of experts consulted is larger, but the disadvantage being less detailed and precise discussions. At the point to define the scope this is considered a minor issue. As we move towards the conclusion of the WP in 2018 we will use the live workshop under task 5 to involve a group of experts for review of the end deliverable. We will consider the workshop itself as an expert group, as this is in fact the intended purpose of the workshop. The workshop is planned to take place in Belfast in May 2018, attached to the ASSET conference.

Although we know that almost every stakeholder sees the advantage of (early) information sharing, we assume that it is primarily the food industry and retailers that have the most objections and see the most hurdles. While this is something one can understand we can see that the information with industry and retail is of prime importance to see the bigger picture of vulnerabilities and opportunities for food integrity issues. This has led us to the conclusion

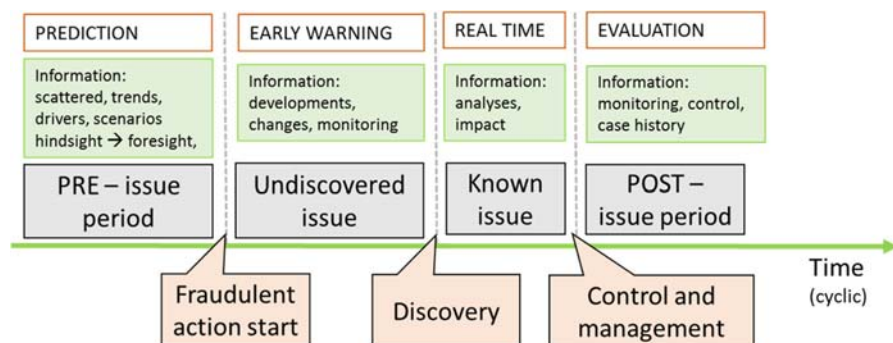
that in order to study the feasibility of information sharing in the area of food integrity this should be focussed first at industry and retail. In search for hurdles and more importantly key success factors under task 4, Ghent University undertakes a Delphi study aimed at these stakeholder alone, in any case in the first and second rounds. Obviously the third round, which is the Belfast workshop, will be as broad as possible. Whether the second round will be open to other stakeholders as well is still under discussion and may depend on first-round results.

In the food integrity realm the stakeholders involved are a broad range of stakeholders. First of all, stakeholders in the industry and retail, but also from primary production chains, transport and logistics, but also the consumer. Then, it preferably includes authorities, policy makers and research. Above that, all branches and other forms in which they are organized. Especially when the aim is to identify issues at a stage as early as possible, information from many sides, subjects and viewpoints should come together in a system framework that supports the key success factors and overcomes the hurdles.

WP17 is a feasibility study which means that there is no intention to deliver a (functioning) system or to define such a system shaped to the needs of stakeholders. The study will outline an architecture of a system and show a selection of existing solutions (that may be partly fulfilling requirements) and it will define requirements for the system (task 2). These will need to be all in line with the key success factors and hurdles that are the outcome of the stakeholder interaction and investigation (task 4). This task 2 is descriptive and based on literature study and as such will define its scope partly in the progress of the task.

The purpose of information sharing systems is to alert food business operators at a stage as early as possible (emerging issues and risks, early warning) and to make information actionable. The scope of WP17 is to propose a framework and requirements to fulfil those targets within the established feasibilities researched. Already foreseen requirements of such a framework are listed below (in no particular order):

- Proactivity: the information should be 'early' enough to take action (not only topical issues, such as in RASFF).
- Memory function: information should function as examples, memory bank and educational (thus including topical issues!).
- Unbiased: information as complete as possible, not selected beforehand.
- Untargeted: information covering as much subjects as possible, not just the suspected or suspicious ones.



Sharing information as such has no added value if it is not seen in conjunction or combination, also with sources outside the primary stakeholder information. This means the scope of a framework system includes data integration and data analysis to allow for an optimal preparation (prevention, management, control, impact reduction) for issues that may hit food business operators.

This is the case for any individual stakeholder but it is obvious that this is a major task and still it is impossible to integrate all relevant information. This is where sharing the information and allowing third party interpretation would create great benefits for all stakeholders in the food production network. A data integrator would see the big picture and be able to send specific relevant information (early warning) to dedicated links in the network. Sharing does not imply open access of all information to all stakeholders.

Task 3 will define the relevant types of data and information to be considered and like task 2 will define its scope partly in the progress of the task. But, based on experience and historical case review the scope of task 3 will restrict itself within Food Integrity at first to what can be learned from relevant cases. Examples of types of relevant information are:

- Legal standards and particularly changes in policy and regulation.
- Economic conditions and prices (both in ingredient markets and consumer markets).
- Raw material market developments and worldwide trade flows.
- Supply and demand trends.
- Drivers of change, scenarios.

Task 2 and 3 together will develop the proposed IT framework for an information sharing system within the developed scope, and based on what is existing and feasible. Of course, this will all be very theoretical without success factors or hurdles applied and the wishes of stakeholders assessed and addressed. Here the integration with task 4 needs to take place.

The ultimate target of WP17 is to bring together relevant stakeholders and information (types of, sharing systems) to demonstrate the feasibility of early identification of food integrity issues. Under task 5, the Belfast workshop, this will happen.