



FOODINTEGRITY Report Summary

Project reference: **613688**

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Periodic Report Summary 1 - FOODINTEGRITY (Ensuring the Integrity of the European food chain)

Project Context and Objectives:

The Challenge

The provision of safe and authentic European food produced to defined quality standards is a key expectation of consumers as well as a key selling point for the European agri-food economy. European food is recognised globally for its high standards of production, labelling and safety. As such it is susceptible to lower quality imitations that seek to exploit the added value that European products have with respect to consumers and the global food market. Counterfeiting of food products has a major detrimental effect on the EU food industry as consumers start to doubt the authenticity of European brands. Whereas food safety within Europe is well co-ordinated and has a high profile, this is not the case for detection of food fraud or the enforcement of associated legislation. The main stumbling blocks to progress are reluctance to share data/intelligence/reference materials due to concerns from industry about competition, the need to protect the brand specification and the market price, lack of trust in third party understanding of the data and concerns about consumer reaction.

In recent years consumer preference for food with declared provenance has led to an increase in the marketing of foods from designated origins/productions and a strengthening of European legislation regarding the labelling of food. As a result the food industry is highly engaged in establishing an infrastructure that will verify food authenticity/provenance and is seeking to actively contribute to assuring the authenticity of the food supply.

There is a clear need for an initiative that will link up the major stakeholders, establish data sharing tools and working practices, provide rapid fit for purpose screening and verification methods, exploit past and present work and provide a consolidated research base from which to identify and commission new work, as well as provide a source of expertise to advise on future activities within Horizon 2020. The aim of FoodIntegrity (FI) is to fulfil that need by:

- providing Europe with state of the art and integrated capability for detecting fraud and assuring the integrity of the food chain;
- developing a sustainable body of expertise that can inform high level stakeholder platforms on food fraud / authenticity issues and priorities;
- acting as a bridge that will link previous research activities, assess capability gaps, commission research and inform Horizon 2020 research needs.

Project objectives

The FoodIntegrity (FI) project will achieve these aims by fulfilling the following specific objectives

1. Establish an international network of expertise that will inform regulatory and industry stakeholders about food authenticity issues and inform Horizon 2020 on future research needs
2. Consolidate available information on existing datasets, available methodology and establish a tangible and interrogatable knowledge base that will facilitate data sharing between European stakeholders.
3. Prioritise research requirements to fill the commodity, method, reference data and intelligence gaps
4. Commission research and development needed to address the gaps
5. Develop fit for purpose verification methods and systems for three food commodities that are significantly affected by adulteration and fraud (olive oil, spirits and seafood)
6. Investigate consumer attitudes and perceptions toward food authenticity and traceability, of European products, in home and emerging markets (using China as a case study)
7. Develop and test an early warning system for use by stakeholders that can identify potential food fraud events.
8. Provide practical tools and systems that can be integrated into food industry production and supply chains for assuring the integrity of food
9. Ensure knowledge transfer of FoodIntegrity outputs and initiatives to the food industry, regulatory, enforcement, research and consumer stakeholders.

Project Results:

Networking and integration activities

A central aim for FoodIntegrity was to ensure the project is a key scientific resource for all stakeholders to call upon. An essential first step therefore was to enhance the visibility of FoodIntegrity within the food authenticity landscape and to ensure stakeholders could easily engage with the project. The following activities took part in year 1 to enhance the profile of the project:

- A major weeklong conference took place in February 2015 on food authenticity encompassing the kick off meeting of the FoodIntegrity project. Over 200 participants from 28 countries registered for the event that comprised symposia/workshops on: non targeted analysis, food authenticity, and methods for determining geographical origin.
- Links formed with major stakeholders integrating them into FI, e.g. DG Sante, DG Agri, Which?, Food and Drink Europe, EuroCommerce, National Center for Food Protection and Defense (US), United States Pharmacopeia, FAO
- Dissemination activities at: DG Sante's Food fraud Network, Brussels; DG Sante/Italian Presidency conference on Food Fraud, Rome; ASSETT conference Dublin; FAO Food Fraud conference Vienna; "Beating the cheats" London. EuroCommerce-Brussels; British Retail Consortium, London; Institute of Grocery Distribution, London;
- Development of a FI expert network. <https://secure.fera.defra.gov.uk/foodintegrity/expertdb/index.cfm>
- Extensive stakeholder engagement in FoodIntegrity activities e.g. a multi stakeholder workshop to prioritise the procurement topics, Brussels October 2014;
- Initiated a network of European food analysts working on food authenticity issues-first meeting will take place in Bilbao March 2015;
- Initiated a network of the national authorities within Europe who fund food authenticity research-first meeting will take place in Bilbao 2015;
- Production a website (www.foodintegrity.eu) that will be the focal point for Food authenticity

Enhancing and Consolidating the Knowledge Base

FoodIntegrity has carried out the following activities to improve and centralise information relating to food authenticity:

- Designed an information centre that will contain accessible information on appropriate methods, databases and expertise for assessing the authenticity of food and ingredients;
- Carried out an on-line survey (in 4 languages) to understand the current problems and sensitivities in the olive oil market such as those relating to quality, traceability, regulation and standard methods.
- Produced a wiki page on misdescription events in the seafood sector <http://foodintegrity.pbworks.com>
- Produced a report describing recent food fraud events that had a significant impact on the food industry.
- Produced a report detailing key risk areas and related analytical verification methodology for the food industry.

Research

FoodIntegrity has undertaken the following research initiatives:

- Identified gaps in present authenticity research and with the help of stakeholders prioritised four key gaps that will be the focus of FI research calls in 2015 (<https://secure.fera.defra.gov.uk/foodintegrity/showNews.cfm?id=14>)
- Initial scoping work to underpin a consumer behaviour study in China that will assess Chinese consumer attitudes to European food products;
- Initiated an industry study looking at technologies for rapid screening of denaturants in spirit drinks
- Produced an initial design and functionality for an early warning system for predicting future food fraud risks together with a detailed report on historical cases that can be used to test the developed model.

Potential Impact:

FoodIntegrity will enhance the value of the European Agri-food sector by developing consolidated information, processes and tools, endorsed by major stakeholders. Not only will European producers be able to provide authentic, high-quality food from sustainable production, but they will be able to document this authenticity with reference to accepted and transparent methods, both paper trail and analytical. This visibility will not only ensure that European food products are protected from counterfeiting and fraud due to state of the art systems and processes, but will also ensure that the legacy from the world's leading food safety and quality systems is preserved/enhanced. Specific outputs from the project will be:

- An international network of expertise that will inform regulatory and industry stakeholders about food authenticity issues and inform Horizon 2020 on future research needs

- A consolidated knowledge base on food authenticity available on central website containing readily accessible information on publications, reports, media articles, videos, existing datasets, available methodology.
- Outputs of new research on: non targeted analysis, procedures for authenticating complex foods, rapid methods and increased transparency along the food chain
- Fit for purpose verification methods and systems for three exemplar food products that are frequently affected by adulteration and fraud (olive oil, spirits and seafood)
- Improved understanding of Chinese consumers' attitudes and perceptions toward food authenticity and traceability, of European products
- A working model of an early warning system for use by stakeholders that can identify potential food fraud risks.
- Provide practical tools and systems that can be integrated into food industry production and supply chains for assuring the integrity of food
- Transfer of FoodIntegrity outputs and initiatives to the food industry, regulatory, enforcement, research and consumer stakeholders

List of Websites:

www.foodintegrity.eu

Related information

Documents and

- [periodic1-foodintegrity-publishable-summary.pdf](#)

Publications

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