



Assuring the integrity of the food chain: the Food Integrity project

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To be discussed

- Food authenticity-what's the problem?
- The need for verification
- How FoodIntegrity (the project) is going to help
- How you can get involved

Consumer expectations



- Expect safety quality and authenticity (integrity) to be assured
- Accurate labelling “It does what it says on the can”
- The Food Information for Consumers Regulation –embraces this sentiment

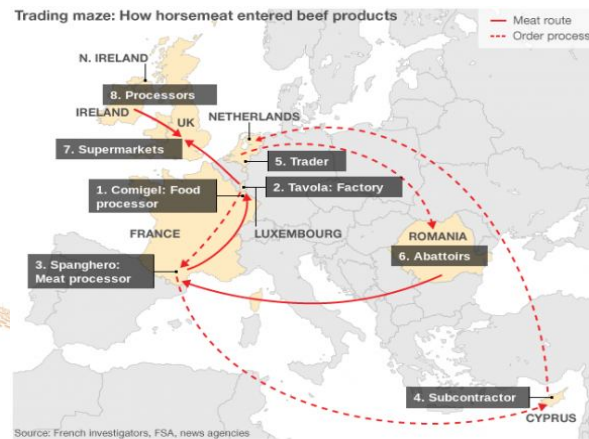


Post horsemeat issues



- Lack of information on food authenticity
 - Expertise
 - Methodologies
 - Common language-ontology
 - Lack of access to knowledge, databases, intelligence
 - Information not being shared
- Lack of verification procedures
 - Over reliance on “food” traceability systems
 - Lack of harmonisation of methodologies and practices
 - Unclear/lack of specifications for compliance assessment

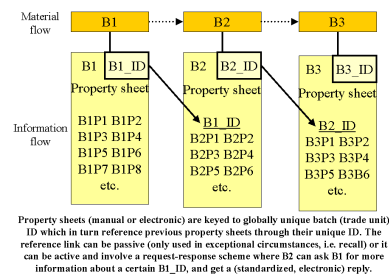
Tracing horsemeat



“Food” Traceability systems



- Food traceability as the: ‘...ability to follow the movement of a feed or food through specified stage(s) of production, processing and distribution’ (ISO-22005:2007, 2007).
- EU and industry standards
- Sophisticated traceability used by retailers and large industry.
- One up one down and in some cases chain traceability
- Less advanced for some SME’s



Courtesy of Petter Olsen Nofima (No)

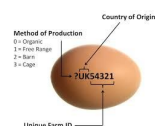
Anatomy of a Barcode



Tracking and tracing packaging



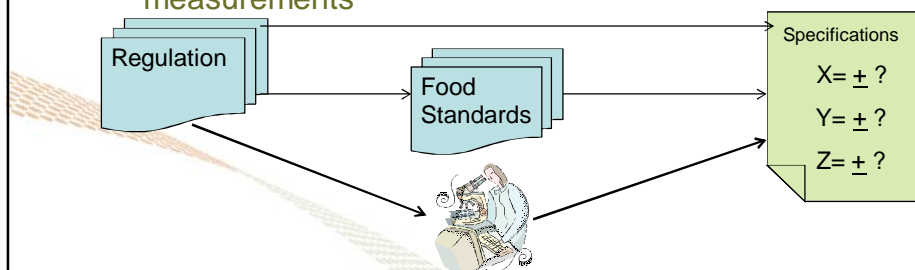
- Most systems track and trace units of food packaging (packaging, pallets, cargoes)
- A few do track and trace the item itself
 - eg whole eggs, livestock
 - Problems can arise at processing/post slaughter stages
- Need verification match between contents and identifier- how to do?



Verification and specifications



- In order to verify using analytical methodology we need a specification or to interpret regulation/std into a specification e.g.
 - Legislation relevant to Horsemeat mislabelling converted into analytical specifications i.e. PCR measurements

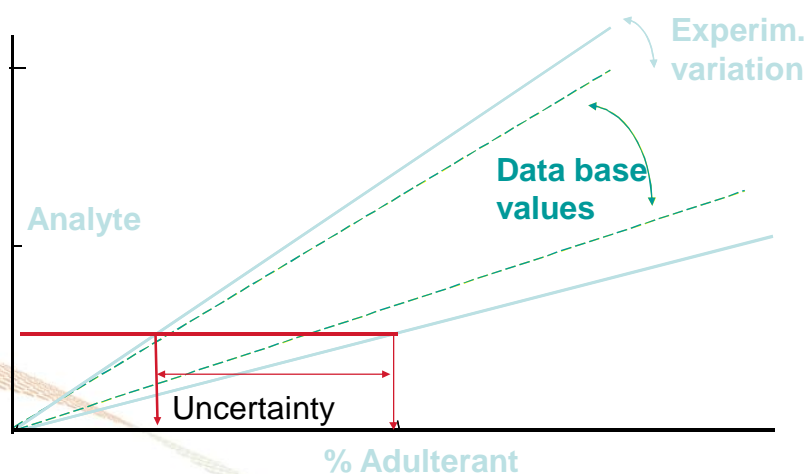


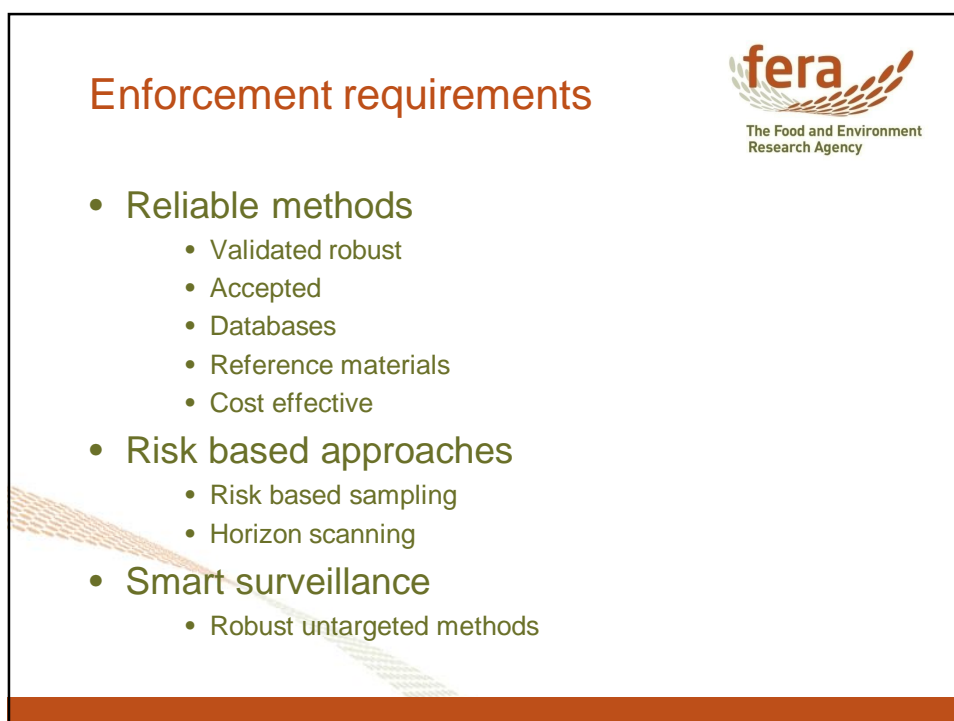
Regulatory specifications

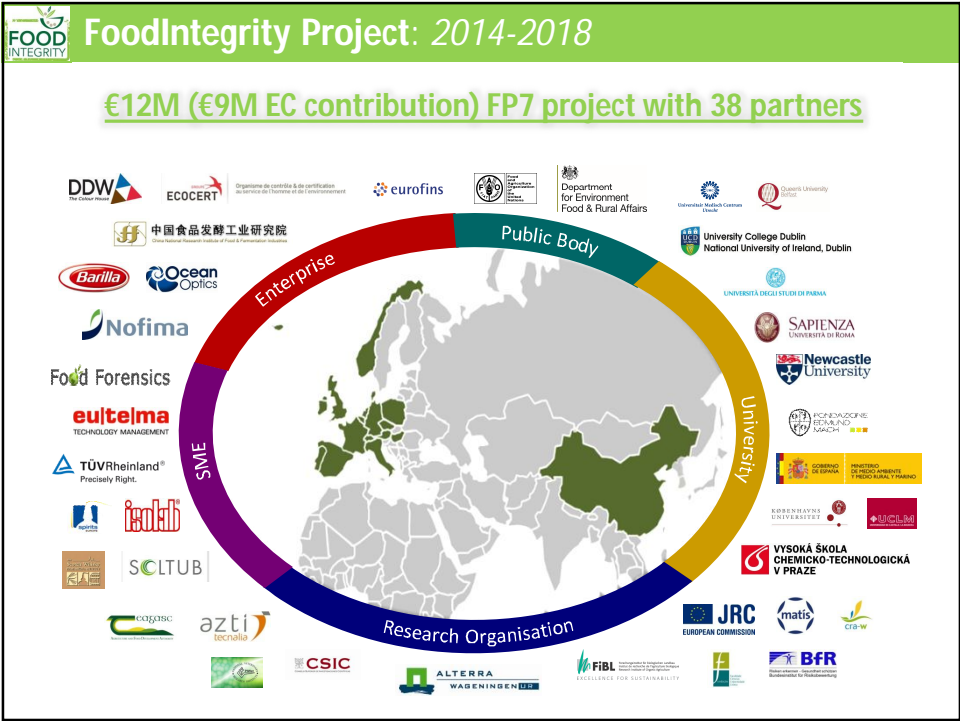
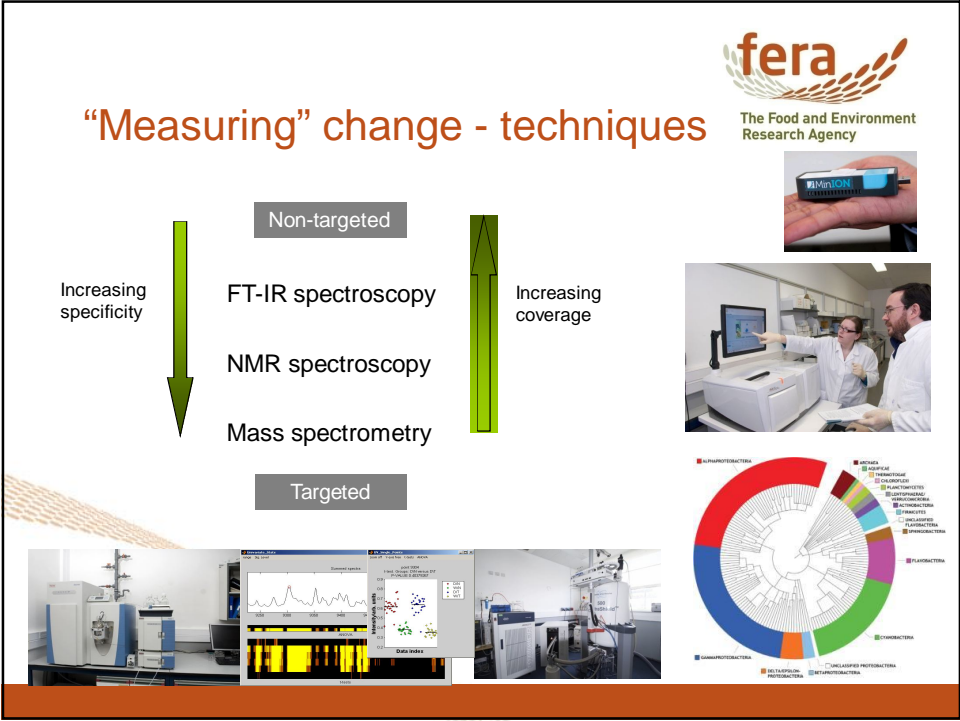


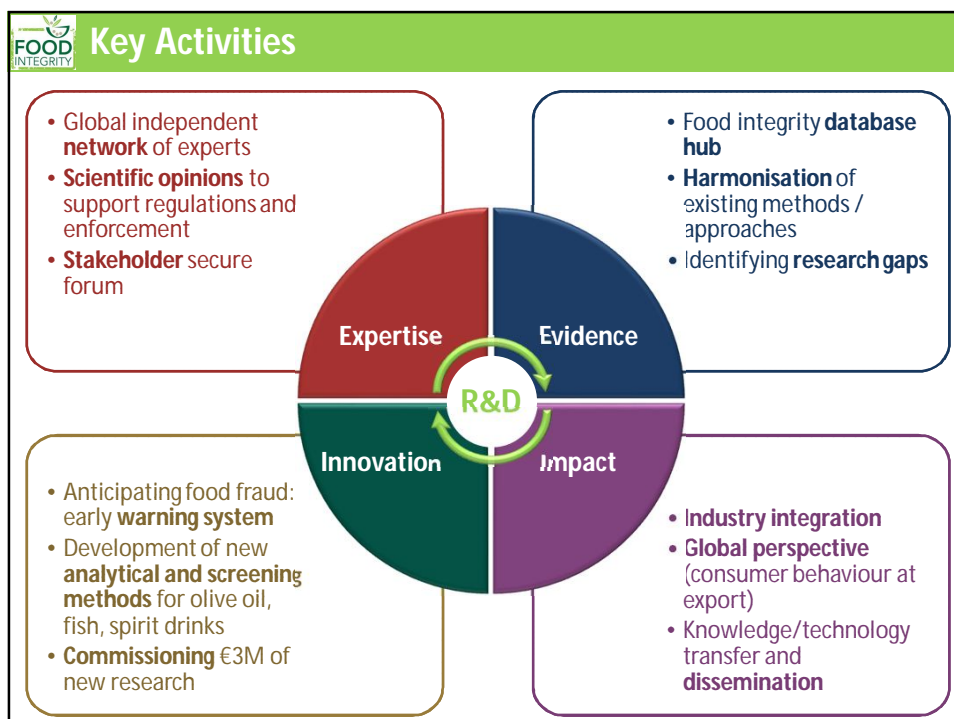
- Most regulated areas tend to have transparent specifications for compliance:
 - Food contaminants (safety) e.g. mycotoxins
 - Alcoholic drinks (tax revenue) e.g. alcohol content
 - Food commodities (trade) e.g. Sugar
- Food authenticity
 - Geographical origin, species/variety, free range ?

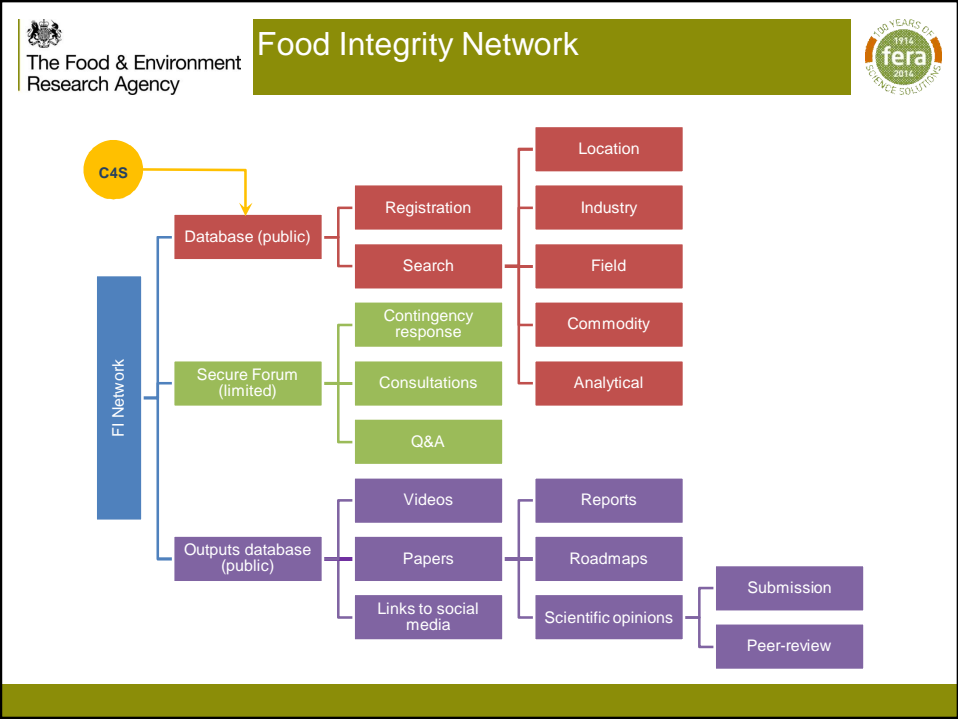
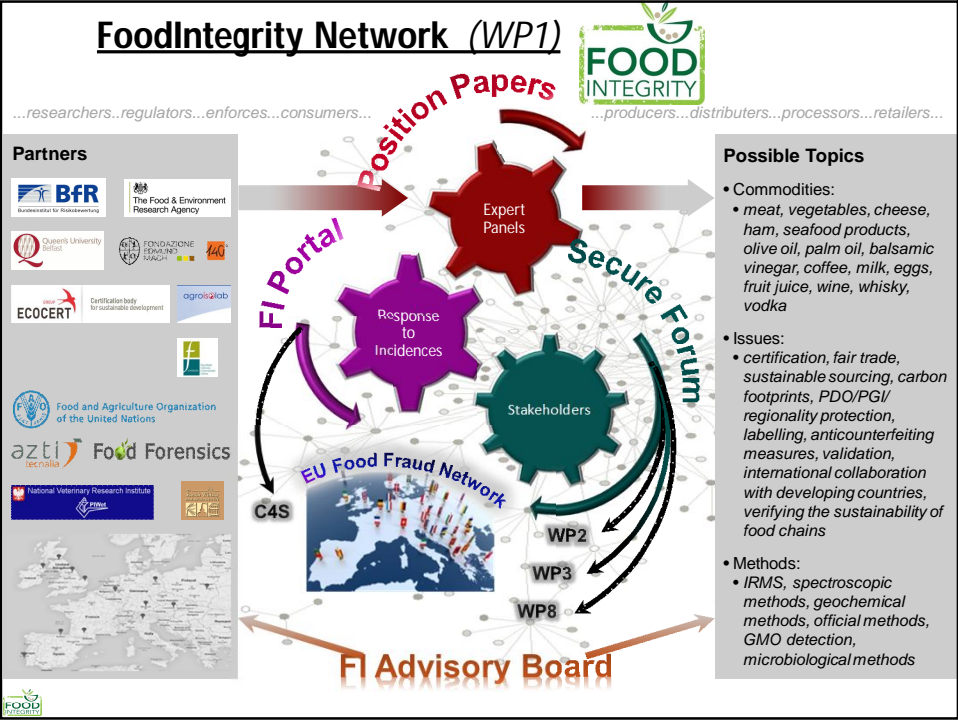
Uncertainty, degree of confidence



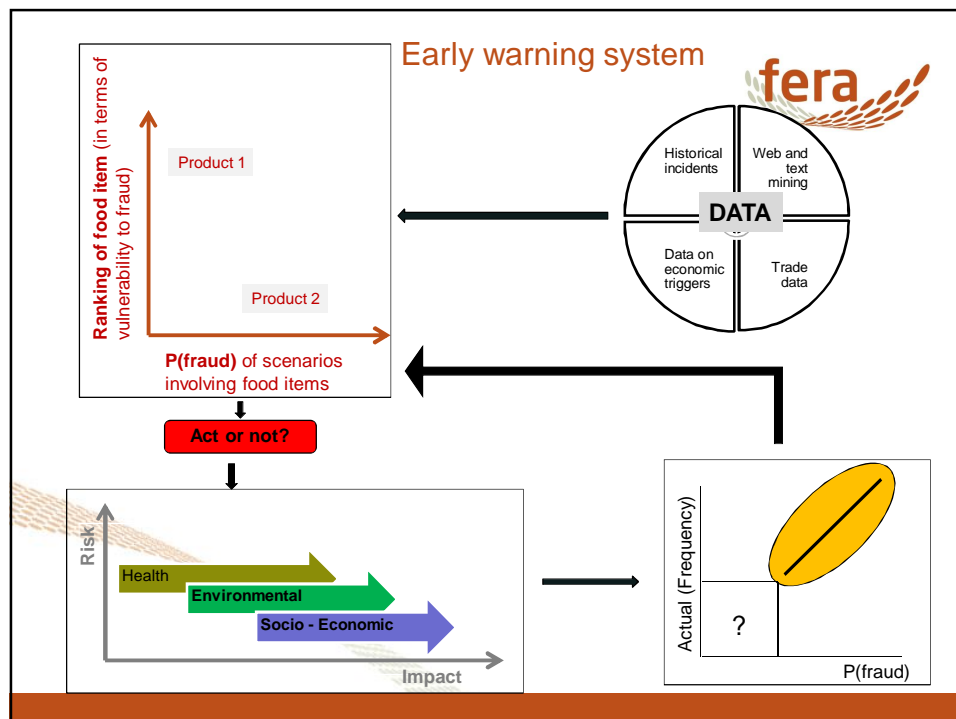
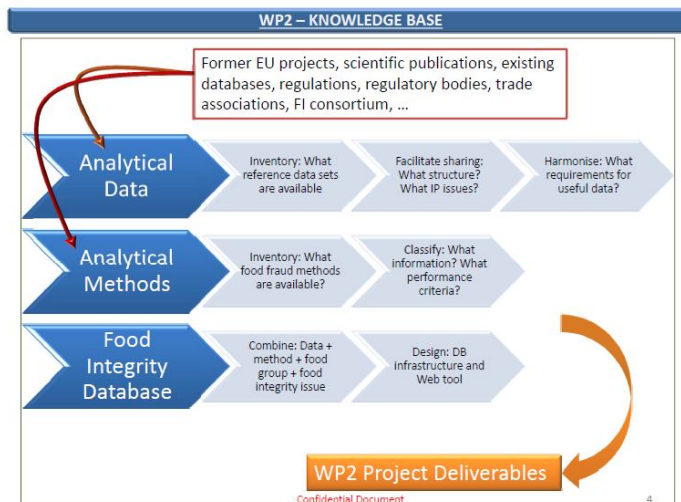


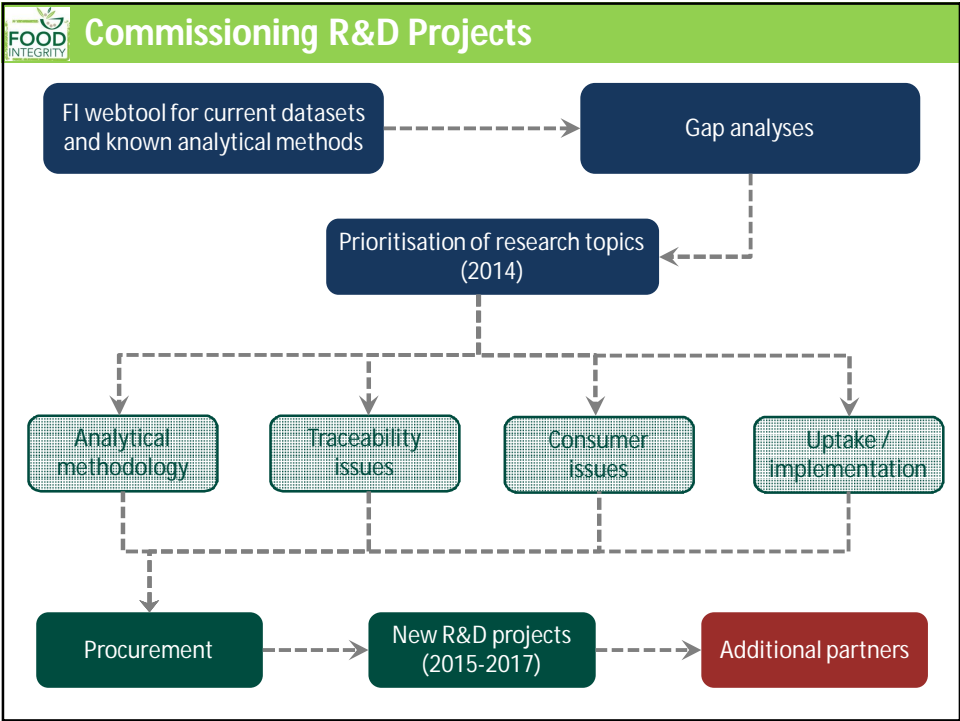






Knowledge Base WP2





How to Get Involved

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Vétérinaire, Agroalimentaire et de l'Alimentation

PEPSICO

Ministero delle politiche agricole
alimentari e forestali

ACFD

defra
Department for Environment
Food and Rural Affairs

USP
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Join FoodIntegrity network

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THE SCIENCE OF WHAT'S POSSIBLE.™

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Conclusions



- Horsemeat revealed a number of deficiencies in our ability to detect and anticipate food fraud
- A lasting legacy is the requirement to have a greater level of verification in the food chain and a more robust analytical infrastructure
- FoodIntegrity is addressing many of these issues

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THANK YOU

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