



HM Government

Elliott Review into the Integrity and Assurance of Food Supply Networks – interim report

December 2013

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Preface

In June 2013 I was asked by the Secretaries of State for Health and the Department for Environment, Food and Rural Affairs (Defra) to conduct a review into the integrity and assurance of food supply networks; to consider issues which impact upon consumer confidence in the authenticity of food products, including any systemic failures in networks and systems with implications for food safety and public health; and to make recommendations.

Whilst this is not a review into the incidents relating to finding horse meat in beef products earlier this year, I have taken into account the many industry, government and public responses and the findings of various reports that were published as a result.

I was asked to take evidence from the widest range of views and interests; to bear in mind constraints and competing demands on public expenditure and the need for an approach that is proportionate to the risks involved and to look to identify good practice. Over a relatively short time frame I have done my best to meet this request. My enquiries have been met with positive and constructive responses from across the United Kingdom, and I am very grateful for the assistance I have received from a vast range of stakeholders.

I was asked to produce an interim report in December 2013, setting out clearly what I think needs to change and what further work is needed. This interim report identifies key weaknesses which exist around the integrity and assurance of food supply networks. As far as possible I try to be clear in my recommendations about what could and should be done as soon as possible to address those weaknesses. My final report, which will be published in spring 2014, will set out in more detail what will need to be done by Government, industry and others to facilitate implementation of my recommendations.

The UK food industry works hard to deliver safe, competitively priced products for consumers, especially in the current financial climate where household budgets are under severe pressure. However, a significant change in culture is needed to deal with the threats of fraudulent activity that exist along complex supply chains. My review to date has identified a worrying lack of knowledge regarding the extent to which we are dealing with criminals infiltrating the food industry. I believe criminal networks have begun to see the potential for huge profits and low risks in this area. The food industry and thus consumers are currently vulnerable. We need a culture within businesses involved in supplying food that focusses on depriving those who seek to deceive consumers. A food supply system which is much more difficult for criminals to operate in is urgently required. Government, and in particular a more robust Food Standards Agency has a major role to play partnering these efforts. The costs of delivering the necessary safeguards may seem a burden but the cost of failure is even greater. The integrity and assurance of our food supply matters

enormously in both protecting consumers and bolstering the reputation of our food industry. Our common aim must be to regain and enhance public trust.

A handwritten signature in blue ink that reads "Chris Elliott". The signature is written in a cursive, flowing style.

Professor Chris Elliott

12 December 2013

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Executive Summary

1. This review was prompted by growing concerns about the systems used to deter, identify and prosecute food adulteration. The 'horse meat crisis' of 2013 was an obvious trigger, but so too were concerns about the increasing potential for food fraud, which I will refer to as '**food crime**', in many instances due to the complex, widespread and organised nature of these activities nationally and internationally. These incidents can have a huge negative impact on both consumer confidence about the food they eat, and on the reputation and finances of food businesses.
2. I was asked to take evidence from the widest range of views and interests (see Terms of Reference in Annex A) and issued a call for evidence in June 2013. A summary of the responses are published at: <https://www.gov.uk/government/policy-advisory-groups/review-into-the-integrity-and-assurance-of-food-supply-networks>. I have travelled across the UK carrying out site visits to a wide range of premises at all stages of the food supply chain. I have chaired many round table meetings and spoken to a range of stakeholders, regulators and consumers. With the help of a small but excellent team of subject matter experts, (see Annex B) I have taken a systems approach in making recommendations on how to make it much more difficult for criminals to operate in food supply networks and thus provide the UK consumer with safer and more authentic food. I am most grateful for all the contributions I have received (see Annex C).
3. UK consumers have access to perhaps the safest food in the world and all those involved in supplying food and for developing and enforcing legislation should be commended for what has been achieved. However, our focus now urgently needs to turn to tackling food crime. Due to very limited intelligence it is hard to gauge the scale of this in our food supply chains. Estimates of the extent of criminality in food provision vary widely. In the UK we don't know the scope or extent of the problem. Data collection and well structured surveys should be considered as a matter of urgency to fill in this knowledge gap. The food industry's own testing for horse DNA earlier this year identified contamination in 1% of UK samples and over 4% in Europe.
4. Food crime is a global problem and not one which impacts on the UK alone. The UK food and beverage market (including food drink and catering) in 2012 was estimated by Defra to be worth £188bn, so the cost of criminal activity may be substantial. Limited intelligence has been collected and it is not possible to gauge whether we are dealing mainly with systematic criminality perpetrated by individuals and groups operating exclusively in the food chain, or whether organized criminal networks (i.e. those already established in activities such as trafficking drugs, cigarettes, fuel, firearms or humans) have moved into food crime. Conventional police wisdom suggests that there is no crossover but

intelligence related to food-crime has never been collected systematically. I regard this as an unknown that requires urgent attention because of the ease with which money can be made from food fraud. In order to deal with the problem we must know the extent of the problem.

5. Food crime is an emerging issue for all of Europe and The European Commission has taken a proactive stance by establishing a new food fraud unit within DG SANCO. The recent award of substantial research funding via a Framework 7 project on 'Food Integrity' with the Food and Environment Research Agency (FERA) as co-ordinators will play a major role in the harmonisation of European efforts to combat food crime.
6. As I have taken a systems approach to ensuring the integrity and assurance of food supply networks it means no one part of the report can stand alone: my recommendations are interdependent, and based on the acceptance of the principles and characteristics set out below, of an approach that would support public confidence that those responsible for food supply networks are paying adequate regard to integrity and assurance.
7. A full list of recommendations can be found at Annex D.
8. The systems approach I have recommended is intended to provide a framework to allow the development of a national food crime prevention strategy. Making it much more difficult for criminals to operate in food networks by introducing new measures to check, test and investigate any suspicious activity. Ultimately those caught perpetrating criminal activity must be severely punished by the law to send a clear message to those thinking of conducting similar criminal activity not to operate in 'our space'. In order to do this we need new and more rigorous measures of auditing and testing supply networks and a robust system of investigating and prosecuting wrong doers.
9. This interim report deals with each of these elements in turn, describing each of the elements of the systems approach, why I believe they are important, the problems which I believe exist and the extent to which there is capacity to improve the application of existing resource where it is or could be shared.
10. For each element of this systems approach there are clear roles and responsibilities for Government and industry. There is no single method of assuring the integrity of our food and my recommendations are directed at industry, regulators, enforcement bodies and consumers accordingly. Some of my proposals will require a change of culture within the industry and the Food Standards Agency so that they can work better together to protect consumers. I believe, however, that a new approach to tackle food crime as set out in this interim report will benefit industry by supporting and protecting the vast majority who are committed to complying with the law. My engagement with industry,

11. My systems approach comprises the following characteristics:

Consumers First - *Industry, government and enforcement agencies should, as a precautionary principle, always put the needs of consumers above all other considerations, and this means giving **food safety and food crime prevention** – i.e. the deterrence of dishonest behaviour – absolute priority over other objectives.* In this section of the report I seek to provide an overview of food crime and present my view on the importance of consumer confidence. Whilst identifying best practice, I recommend that all parties involved in the governance of the food chain should prioritise consumer confidence in the food they eat over all other aims; **food crime prevention** must be the primary focus (see recommendations 1 and 2)

Zero Tolerance - *In sectors where margins are tight and the potential for fraud is high, even minor dishonesties must be discouraged and the response to major dishonesties deliberately punitive.* My recommendations in this section focus on the actions industry can take to ensure that 'casual dishonesty' is discouraged and how their individual businesses practices and culture can be adapted to prevent and protect against food crime (see recommendations 3 - 9).

Intelligence Gathering - *There needs to be shared investment between Government and industry in intelligence gathering and sharing, although to ensure its effectiveness all organisations must have regard to the sensitivities of the market.* Here I set out what I consider to be the essential requirements of effective intelligence gathering and dissemination mechanisms; there is a role for both regulators and industry to have their own intelligence services and more action needs to be taken to ensure they derive the maximum benefit from one another (see recommendations 10 - 18).

Laboratory Services - *Those involved with audit, inspection and enforcement must have access to resilient, sustainable laboratory services that use standardised, validated methodologies.* My recommendations in this section focus on two areas; first ensuring that all food authenticity testing follows standardised procedures, using recognised, validated methodologies, and secondly creating a robust, sustainable public sector laboratory system that can be considered to be a national asset (see recommendations 19 - 23).

Audit - *Industry and regulators must give weight to audit and assurance regimes, so as to allow credit where it is due; but also try to minimise duplication where possible. Audits of food supplies by producers, storage facilities, processors and retailers are undertaken both routinely and randomly.* In this section I set out the key changes that I believe need to be made to audits in order to make them more effective, less

burdensome and ultimately more focused on preventing food crime (see recommendations 24 - 35).

Government Support - *Government support for the integrity and assurance of food supply networks is kept specific, measurable, attainable, realistic and timely (SMART).* Here my recommendations focus on the Government bodies that I believe have a key role in the prevention and protection of food crime. I call for better partnership working between Government departments and a more robust FSA, still independent but with greater connectivity to Ministers. I also set out my views on why I think it is necessary, to bring back the Food Authenticity Programme into the FSA whilst Defra retain policy of Country of Origin Labelling and other competitiveness based labelling policy, such as Product of Designated Origin (see recommendations 36 - 40).

Leadership - *There is clear leadership and coordination of investigations and prosecutions; and the public interest is recognised in active enforcement and significant penalties for significant food crimes.* My recommendations in this section set out the fundamental principles for establishing a dedicated Food Crime Unit, hosted within the FSA, which I believe to be necessary in order to develop the necessary expertise in order to undertake investigations in what may be serious organised crime (see recommendations 41 - 43).

Crisis Management - *When a serious incident occurs the necessary mechanisms are in place so that regulators and industry can deal with it effectively.* My final section focuses on the measures that need to be taken in order to ensure clarity of roles and responsibilities in the event of a food crisis and makes recommendations as to how these can be achieved (see recommendations 44- 48).

Next steps

12. During the early part of 2014 I intend to discuss my recommendations with Government, industry and others with an interest in ensuring the integrity and assurance of food supply chains and the protection of the interests of consumers. For many of the recommendations I believe action can start now but understand further discussions will be needed before all can be finalised. I intend to review progress on their implementation before I issue my final report, and I will want to address any concerns my recommendations may raise with those who will have a key role in making them happen. I will then issue my final report in spring 2014.

Chapter 1 Introduction & Background

1.1 Over the last 20 years a great deal of work has been done by government and by the food industry to ensure that our food is hygienically safe to eat, and is free from chemical and microbiological contamination. This has resulted in the UK having one of the safest food supply systems in the world and all those involved in supplying food and for developing and enforcing legislation should be commended for what has been achieved. However, much less attention has been focused on the measures needed to ensure that long standing legal requirements are observed relating to the authenticity of what we eat and the need to tackle food fraud as a crime.

Key Definitions used in the report (See also Annex E)

***Food fraud** is defined by Europol and Interpol as ‘the deliberate placing on the market, for financial gain, foods which are falsely described or otherwise intended to deceive the consumer’.*

Food fraud becomes food crime when it no longer involves a few random acts by ‘rogues’ within the food industry but becomes an organised activity perpetrated by groups who knowingly set out to deceive and or injure those purchasing a food product .

***Food authenticity** is about food offered for sale or sold is of the nature, substance and quality expected by the purchaser. Authenticity can be a particular issue for faith groups or consumers with particular food preferences who do not want to purchase products with certain ingredients.*

1.2 The global nature of current food markets enables UK consumers year-round access to all types of seasonal products. Food supply has become a highly complex system. Consumers have become used to variety, taste, and access at low cost and marginal profit to suppliers. All of these factors have increased opportunities for mislabelling, substitution and for food crime.

1.3 As the food industry becomes ever more reliant on ingredients sourced from across the world, there is a growing awareness of the importance and difficulty of ensuring the integrity and assurance of food supply networks. The recommendations in this review will not stop food crime; instead they are intended to make it much more difficult for criminals to operate.

1.4 The culture of the UK food industry is currently one of fierce competition for custom and market share and a drive to keep costs down. This imposes a justifiably high level of reliance by consumers on the leadership, good intentions and good practices of those who supply it and regulate it. The public expect the

leaders of industry and Government to support efforts to deliver a food system which is safe, resilient and free from criminal interference.

1.5 Several times during this review I have heard the term 'victimless crime' referred to in respect of food fraud that does not affect human health. **Food fraud and indeed food crimes are never victimless.** No matter where in supply chains fraud occurs, the costs get passed on directly and indirectly to consumers. Industry has often claimed that it was the victim of the horse meat incident because of the costs of recalling products and impacts on brand reputation. In my view, consumers are the victims of food crime as we ultimately pay the price of buying or receiving food which is not of the nature and standard expected.

1.6 All consumers are at risk from fraud. Premium products such as manuka honey and olive oil may be substituted for lower grade products. Lower income groups are at risk since a higher proportion of their income is spent on food, particularly processed foods which are more susceptible to fraud. In addition, particular groups are especially at risk if they rely on single food suppliers such as care homes, hospitals, or prisons.

1.7 Concerns have been expressed during this review that the term food fraud creates an impression of some kind of low grade infraction of the law, of a harmless minor breach of technical regulations of the kind that many hard pressed business people may be tempted to resort to, to make ends meet in difficult times. But nobody should be in any doubt: the serious end of food fraud is organised crime, and the profits for criminals can be huge.

An example of how it could be possible to make money from food fraud (using rough approximations of prices)

If British/Irish beef 'trim' for mince and burgers costs £3.50/kg; and beef 'trim' from another country A costs £2.50/kg; and from country B beef 'trim' costs £1.29/kg; Category 3 animal by-product unfit for human consumption costs £1/kg. If producing 10 tonnes of produce (a relatively small batch in industry standards):

- Undeclared substitution of 10% country A produces criminal profit of £1000
- Undeclared substitution of 10% country B produces criminal profit of £2210
- Undeclared substitution of 10% category 3 animal by-product produces criminal profit of £2500

Category 1 animal by-product must be destroyed, which costs about £20/tonne. There is no biochemical distinction between categories 1 and 3. Category 3 can be sold at a minimum of £1000/tonne. Undeclared substitution of category 1 for category 3 produces a criminal profit of £1020/tonne.

1.8 As a society we have the right to expect Government and industry to discourage dishonesty both for its own sake and specifically because we need to have faith that the food we consume is free from deliberate adulterations:

- which may harm us physically and immediately
- which may give us longer term health issues
- which repulse us
- which are contrary to our religious or ethical choices
- which are cheating us financially

1.9 The protection of legitimate businesses, and creating an environment that allows them to thrive, is a crucial part of the Government's drive to make the UK more competitive.

Good industry practice

1.10 As part of my review to date I have seen many examples of good industry practice that have given me cause for optimism and I thank all of those businesses that have been generous with their time and insight. Each supply chain is unique, proving that there is no one-size-fits-all approach to assuring supply chain integrity. I do not have space within this interim report to reference all the businesses I have visited and more detailed case studies will be presented in my final report. Those that have stood out include: the supply chain for McDonald's beef patties as a fine example of a short supply chain that values long-term commercial relationships; Morrisons' fully integrated fresh beef supply chain which not only helps assure integrity but also minimises waste, and Young's Seafood's investment in horizon scanning to identify emerging risks coupled with a rigorous programme of analytical testing. I would welcome the opportunity to explore the supply chains of other food businesses during the second part of my review.

1.11 In the course of this review I have taken a systems approach to ensuring the integrity and assurance of food supply networks, which has guided me in developing my recommendations. The following are key features of a system that would support public confidence that food supply networks are paying adequate regard to integrity and assurance:

- Consumers First
- Zero Tolerance
- Intelligence Gathering
- Laboratory Services
- Audit
- Government Support
- Leadership

- Crisis Management

1.12 This interim report deals with each of these in turn, and highlights their importance, the weakness in existing parts of systems and the action necessary to address those weaknesses.

Chapter 2 Key features of a system that would support public confidence that food supply networks are paying adequate regard to integrity and assurance

2.1 Consumers First

Industry, government and enforcement agencies should, as a precautionary principle, always put the needs of consumers above all other considerations, and this means giving food safety and food crime prevention – i.e. the deterrence of dishonest behaviour - absolute priority over other objectives.

2.1.1. Food crimes tend to be identified – if discovered at all – after much of the compromised product has already been consumed. This is too late in terms of risks to consumers and the loss of confidence in our food supply networks. Consumers must be able to trust that what they are sold to eat is safe and authentic. Food is more than a commodity; it is essential to life. As a lifeline service, any undeclared food substitution or adulteration must be considered a public health hazard until proven otherwise. Nowhere is this more evident than where there is contamination by allergens.

Recommendation 1- All parties involved in the governance of the food chain should prioritise consumer confidence in the food they eat over all other aims. To this end, contamination and adulteration of food along with making false claims relating to food products must be made as difficult as possible to commit. Food safety and food crime prevention must be considered our primary objective.

Recommendation 2 - Estimates of the extent of criminality in food provision vary widely. In the UK we don't know the scope or extent of the problem. Data collection and well structured surveys should be considered as a matter of urgency to fill in this knowledge gap.

2.1.2. Consumers are particularly vulnerable to problems with supply, because the vast majority of the public now depend on third party producers, processors and retailers. Most consumers buy food from the private sector. Others are dependent on food from the public sector, where Government takes responsibility for it through institutions such as schools, hospitals, care homes and prisons. Even when food supply is an entirely private transaction, Government has long accepted responsibility for helping to ensure our food is safe – notwithstanding that the primary responsibility for ensuring food meets the requirements of food law rests with food businesses.

- 2.1.3. It is the role of Government to make law, to encourage compliance and, where necessary, to support arrangements to ensure that the law is enforced. Nowadays much of this law is made in Europe, with obligations imposed by regulations issued by the European Union. National Governments take responsibility for how the regulations are implemented and enforced.
- 2.1.4. In recent years European regulations have covered authenticity as well as hygiene, but over the last 20 years regulatory and audit systems have put much greater emphasis on food safety in terms of direct threats to health in the preparation and storage of food. There have been great improvements in the husbandry of crops and livestock, and the safe preparation and storage of food in terms of food hygiene (measures to prevent chemical or microbiological contamination that is injurious to health). From this perspective, current systems have proved very effective and UK consumers can rely on some of the safest food supply networks in the world.
- 2.1.5. Food integrity has received much less attention until a series of incidents revealed substantial problems with system controls including over authenticity across many meat-based foodstuffs, culminating in the 2013 horse meat incident.
- 2.1.6. Various explanations have been given for the recent 'rise' in food crime: austerity; more criminals moving into the food arena; globalisation in supply chains multiplying the information needed for assurance and creating more opportunities for unscrupulous behaviour; increased diversity in our tastes as a nation; improved audit and testing information revealing incidence. All these are relevant, but there are other reasons. The effectiveness of prevention measures will only improve if control systems and sanctions are strengthened. Individuals working in and with the food industry must be challenged to demonstrate:
- A willingness to acknowledge the risk of fraud or to share intelligence, accepting that it does not undermine competitiveness or the pursuit of profit;
 - Zero tolerance of 'casual' substitution by those charged with meeting customer demand (which is often taken advantage of by the criminal, since it means scrutiny is poor);
 - A commitment to developing better ways of working between industry, local and central Government to support public sector oversight; and
 - In the event of crime being detected, a determination to pursue formal action or prosecution, and the imposition of significant penalties.
- 2.1.7. I believe that there are measures that industry and Government can take now to make food crimes much more difficult to perpetrate, and to provide public protection without any great increase in costs to business or consumers.

2.1.8. Deterrence and identification of food fraud must be adopted as the common goals of Government and industry alongside safety. It follows that there will be consequences for decisions about how resources are targeted. It will mean that support for authenticity is given close and sustained attention by Government and industry; that authenticity is required to be demonstrated rather than assumed; that testing undertaken on behalf of consumers meets acknowledged standards of good scientific practice; that testing is undertaken strategically through targeted, evidence based risk assessment as well as random sampling; and that testing is undertaken at the supply chain points most vulnerable to criminal activity so as to give maximum consumer reassurance.

2.1.9. The more complex the supply chains the greater the degree of vulnerability and need for careful risk management. It means that small but significant signs of trouble are not ignored as these might otherwise lead to more serious outcomes; regulatory investigations are led by those with appropriate specialist expertise, so as to improve chances of success; and disrupting criminal activity is considered as important as waiting until there is most chance of a 'big win'.

2.2 Zero tolerance

In sectors where margins are tight and the potential for fraud is high, even minor dishonesties must be discouraged and the response to major dishonesties deliberately punitive.

What does zero tolerance mean?

There is a wide spectrum to food fraud and food crime, but zero tolerance means that even minor dishonesties are not tolerated.

If meat is labelled as low fat beef from England suitable for home freezing, it should be accepted by its sellers that they will be considered to be dishonest and criminally liable if it is not beef but is meat from some other animal; if it does not conform to a commonly agreed low fat standard; it does not come (as claimed) from cattle reared in England; or if it is not suitable for home freezing.

If a meat supply is purchased through what is known as the 'grey' market, it does not mean that it is necessarily of low quality, but the risks buyers are taking need to be fully recognised: supply needs to be carefully monitored and supervised and purchases authenticated by a sufficiently robust level of accreditation and testing.

If fruit juice is labelled as organic mango juice, it should contain mango and come from a certified organic production system: otherwise it should be described as something else.

If fruit and vegetables are grown outside the UK, they should not be described as British.

Any details on food labels have the potential to increase the commission of offences, not to reduce them, but only if producers, processors and retailers are not scrupulous about ensuring the claims they themselves are making are accurate.

Culture

2.2.1. I have found there to be general agreement that in modern markets, legal requirements, although important, should not be regarded as the first line of defence against food crime. **Prevention of food crime needs to become an industry wide culture.** It needs to be regarded as part of social responsibility as well as commercial self-interest, and considered more important than any other concerns, such as:

- anxiety that Government agencies will publish specific and detailed information about specific brands or companies that may have identified concerns;
- industry protecting information about supply chains that might be vulnerable to being lost to competitors;
- refusal to share information about products or suppliers on the grounds that this might be considered anti-competitive (i.e. an abuse of commercial position); and
- reluctance to rethink and redesign how auditing is performed.

2.2.2. In this review I have thought carefully about these issues and wherever possible my recommendations try to support industry by suggesting solutions that will negotiate these challenges rather than ignore them.

Active acceptance of responsibility

2.2.3. The first part of risk management is to know who you are doing business with. The food industry could do well to develop a scheme called 'Know Your Supplier'¹ which seeks to improve the knowledge and grip on all parts of the supply chain. It is not enough to rely on trust or on contract stipulations which are impossible to meet. Understanding your supply chain, and how it works, must be much more than maintaining an appropriate paper trail. When things go wrong, waving a piece of paper will not provide a defence against allegations of negligence or handling counterfeit goods (which constitute criminal property under the Proceeds of Crime Act 2002). The priority must be to make it as difficult

¹ <http://www.fsa.gov.uk/pubs/discussion/dp22.pdf>

as possible to introduce fraudulent produce into supply networks. Everyone shares responsibility for delivery of this ambition.

2.2.4. Consumers need help to make informed choices. The onus should be on producers and suppliers to support consumer choice, by making those choices easy to understand. New EU regulations on food information for consumers² are being introduced and I believe that these will help consumers.

Recommendation 3 - Consumers and their champions need to ask searching questions about whether certain deals are too good to be true.

Recommendation 4- Shareholders, board members, owners and those managing food businesses should ask, and be obliged to consider searching questions about whether certain deals are too good to be true. Opportunities for fraud need to be recognised in company risk registers.

Recommendation 5- All incidences of suspected food crime should be reported directly by staff to their own employers and by industry customers to the senior management of those companies with responsibility for the goods. Mechanisms to allow this to happen need to be developed.

2.2.5. The culture of adversarial procurement of products across the supply chain has contributed to a belief that the lower the price the better, and bonuses are often awarded for such delivery. Those who are employed in the food industry need to understand the extent of their exposure should adulteration or substitution occur, both in terms of the potential for the endangerment of consumers, and brand damage and loss of revenue.

Recommendation 6 - Those charged with governance and management in the food industry need to adapt incentive mechanisms to reward thoughtful procurement practice as well as supporting improvements in technical controls.

2.2.6. I consider that prevention of food crime can be best achieved by all parties involved in production following good practice, by agreeing descriptions of what would be authentic; checking and ensuring conformity; adhering to recognised standards of testing; and doing the same when deciding whether their governance of production, processing or labelling systems is adequate.

2.2.7. During my review evidence was submitted that shows the steps already being taken by one company to identify the potential for food fraud and mitigating steps – see table 1 below.

² http://ec.europa.eu/food/food/labellingnutrition/foodlabelling/proposed_legislation_en.htm

Table 1 - Young's Seafood Limited - 'Seven Sins of Fish'.

Form of Fraud	Mitigating measures to prevent it
<p>Species substitution; substitution of a higher value species e.g. cod, for a lower value species e.g. whiting. Often used in situations where organoleptic identification may be difficult e.g. smoked fish.</p>	<p>Species testing through various methods, including gel electrophoresis or DNA testing.</p>
<p>Fishery substitution; labelling and selling seafood from a different fishery to where it was caught e.g. substituting fish from a well-managed, abundant fishery for one from a depleted fishery with poor market perception.</p>	<p>Mitigation is mainly based on auditing requirements, but is developing a more forensic approach, including DNA analysis to population level.</p>
<p>Illegal, Unrecorded, Unregulated (IUU) substitution; all or some of the fish is from IUU fisheries e.g. some fish may have been caught over-quota or under-sized.</p>	<p>This is difficult to detect and no empirical testing is available, as illegal fish is morphologically and genetically identical to the legal catch. Mitigation is based on auditing, again developing a more forensic approach.</p>
<p>Species adulteration; adding non-declared, non-specified species to a primary processed raw material product e.g. adding lower value species to a high value frozen fish block.</p>	<p>DNA testing to check for other fish species within the material and carbohydrate or fibre testing to check for vegetable based compounds within the material (to detect where non-fish protein may have been added).</p>
<p>Chain of custody abuse; substituting or adding fish from an uncertified fishery into a product with independent certification e.g. adding non-certified fish to a product with Marine Stewardship Council certification.</p>	<p>Mitigation is mainly based on auditing, although DNA analysis is available for some species. However, this testing cannot determine between certified and uncertified material from the same fishery.</p>
<p>Catch method fraud; mis-describing the catch method of a fish e.g. describing trawler caught fish as line caught.</p>	<p>There are no tests available to determine method of catch, but where head and skin of fish remain intact and seafood specialist can determine method of catch, albeit subjectively. Mitigation is based on auditing.</p>
<p>Undeclared product extension; use of technology to enhance the ability of fish muscle to retain water e.g. using soak and injection processes to reduce the analytical fish content of a piece of fish.</p>	<p>A number of tests are used to mitigate against this, including: moisture testing, to determine abnormal levels of moisture, nitrogen testing to determine the analytical fish content, pH testing to determine the use of binders and additional tests for phosphates, sodium and chloride.</p>

Recommendation 7- Industry must ensure that arrangements for the testing and supervision of food supplies are reliable at all stages of the supply chain including at point of sale to the public, if it is to protect its reputation and its market relationship with consumers.

Recommendation 8 - There are particular responsibilities for those who take overall responsibility for providing food for institutions such as hospitals, schools and prison service establishments. They should be provided with statutory guidance on what to include in contracts to ensure the validation and assurance of their supply chains.

Education and support

2.2.8. It is clear that reliance on formal action, such as enforcement notices or criminal prosecutions, has its place in a hierarchy of enforcement, but most people would prefer to demonstrate good practice once they understand what it is. I agree with trade associations and local authority regulatory officers who have commented during the review, that thorough training of practitioners and time spent with business is the most effective way to secure long term improvement in business behaviours.

Recommendation 9 - Education and advice is required on the prevention and identification of food crimes. My preference is for advice to be given in a format already familiar to the food industry, such as that expressed in terms of critical control points for hygiene in a food safety management system (the HACCP approach).

An illustration of control points for authenticity testing in the beef supply is attached at Annex G.

Understanding the risk of complicity

2.2.9. Producers and retailers who knowingly turn a 'blind eye' in reaction to attempted or actual frauds, or who are willing to split hairs about the difference between knowledge and suspicion, need to consider their ethics of not passing intelligence on to competitors. Where their knowledge is well evidenced, they should seriously consider that they may be obstructing the course of justice and be committing an offence by not giving information to the enforcement authorities.

2.2.10. Although the risk of sharing criminal responsibility for committing the deception is low, the law on dishonest handling is clear and starts with stolen goods. A person knows that goods are stolen if he or she has actual knowledge of this, or is told of this by someone with first hand knowledge (such as the person who committed the theft). 'Belief' in property being stolen becomes a

problem when the person could not say for certain that the goods were stolen, but there was no other reasonable conclusion in the light of all the circumstances.

2.2.11. There is more risk of being accused of complicity when food becomes subject to the offence of fraud by misrepresentation. As an example, if a retailer were to secure a foodstuff for a price well below the recognised market price, then it might be inferred that the most obvious way the supply was meeting that price was by committing the offence of fraud by misrepresentation. In such a case I suggest that it is for the retailer to be able to produce evidence that they checked that there were no grounds for suspicion of the product being counterfeit or adulterated, because in such a case the counterfeited or adulterated goods would amount to criminal property. Any party that can be shown to have profited from criminal property while knowing or even suspecting that it was such, would be culpable under the Proceeds of Crime Act 2002³ (POCA) which covers the transfer, acquisition and possession (also known as “laundering”) of criminal property.

How to produce a ‘gourmet’ burger for less than 30p

As well as considering good industry practice, of which there is much, part of my task as Reviewer has been to look at the murkier practices that go on often unnoticed within food supply chains. One supplier of carcass meat and meat products told me in confidence of a meeting with a retailer in which they were asked to produce a 4oz ‘gourmet’ burger for a unit price of under 30p. The supplier believed that by using the cheapest beef available priced at 264p/kg – the meat being from older cow rather than prime young beef - and factoring in fixed costs including labour, packaging and transport, the lowest possible unit price for the burger would be 59p. To produce a 4oz ‘gourmet’ burger at a cost price of less than 30p, the supplier calculated that the average price of beef would need to be just 85p/kg.

With the help of the supplier and my subject matter experts I have considered how it would be possible to produce a ‘gourmet’ burger to this price specification. A simple way to reduce the average price would be to switch to beef supplied from premises that were not EU approved at approximately 140p/kg. Use of offal, such as heart meat, which trades at between 70-110p/kg, would drop the cost even further, while using mechanically separated meat (MSM), which trades at market prices of around 120p/kg and must be clearly labelled as MSM, is another possible means of driving down the unit cost. Of course, where a product – irrespective of price - is made with meat from approved EU premises and is correctly labelled it would be entirely legitimate (although in this particular example I very much doubt the description ‘gourmet’ could be applied), but anecdotal evidence from producers suggests that as

³ <http://www.legislation.gov.uk/ukpga/2002/29/contents>

raw material passes through many different hands, descriptions may have changed by the time the finished product finally reaches the shelf.

2.3 Intelligence Gathering

There needs to be shared investment between Government and industry in intelligence gathering and sharing, although to ensure its effectiveness all organisations must have regard to the sensitivities of the market.

2.3.1. There has been agreement across the board that a means needs to be found to allow information and intelligence about potential frauds (and vulnerabilities to fraud) to be shared freely. This agreement needs to be considered in the context that 'information' is often valueless, and 'intelligence' can be difficult to sanitise. Information may be incidentally or deliberately unreliable. It is often incomplete and inaccurate. However, this view must never be allowed to support complacency. An absence of intelligence is not intelligence about an absence of problems.

Horizon scanning

The role of horizon scanning

The food sector does not have to look far to identify risks. Commodity prices are one clear indicator, especially where there may be substitution of one species for another (e.g. 2012-13 market prices of horse meat compared to imported beef) or where country of origin is attracting a premium (e.g. comparative cost of seasonal vegetables such as asparagus bought in continental auction compared to UK grown). Crop failures must be a pointer to increasing raw materials costs and if these are not reflected by changing prices in the supply chain it should trigger an industry wide alert. Fishing restrictions or pressure on specific catch methods can help forecast likely fish shortages.

Rapidly increasing supply in a foodstuff can be entirely explainable, but it can also be an indicator that closer controls are needed. Recent concerns about the authenticity of manuka honey from New Zealand were prompted by seeming over- supply. Research by the main honey producers' organisation in New Zealand⁴ — from where almost all the world's manuka honey comes — revealed that 1,700 tons of manuka are produced there each year, compared with the estimated 1,800 tons of New Zealand "manuka" honey sold in the UK alone. As much as 10,000 tons are sold worldwide, suggesting widespread fraud.

Pomegranate juice – beneficial for the beverage industry over the last five years and regarded as a 'superfruit' - saw around 400 beverages with the taste of pomegranate

4 <http://www.foodsafety.govt.nz/elibrary/industry/options-for-defining-monofloral-manuka-honey/2013-38-proposals-for-nz-manuka-honey-claims.pdf>

introduced to the market globally in 2012, an increase of 13% compared to 2011. In addition producers have quickly introduced pomegranate vinegar, liqueurs and syrups, and flavourings for confectionary. Pomegranate trees take 2-3 years after planting commercially before they produce fruit, so consumers might expect retailers to be active in testing authenticity as they expand the range and volume of goods they offer. Thus supply and demand, a basic concept in the marketplace must be considered a potential trigger for fraud.

2.3.2. There is less agreement about the appropriate ways and means of ensuring that intelligence about food crime improves. I am firmly of the view that whatever is developed needs to be pragmatic, effective and sustainable. We will waste resource and potentially a one-off opportunity to get it right if investment is made in the wrong places.

2.3.3. The Food Standards Agency (FSA) has undertaken considerable work this year to investigate and develop new arrangements for intelligence gathering, analysis and sharing as recommended by the Troop review⁵. This has been very helpful and timely, although there are certain aspects of this work which may be best left to industry. The fact that deterrence is not seen as a shared responsibility shows that information and intelligence are not being used effectively. It also needs to be a shared activity for producers and retailers.

2.3.4. I have become convinced through discussion with industry representatives and their legal advisers that the only role for the FSA in this arena that they can directly support is for the FSA to provide a one way flow of information, intelligence and advice from Government to industry. However, the flow of intelligence from industry to Government is a vital part of the systems we need to develop; a means of achieving this must be found. Eventually disclosure of knowledge may become a legal obligation for food operators due to the introduction of European legislation, but disclosure of suspicion is a much more delicate issue.

2.3.5. I am persuaded that intelligence is very unlikely to be on offer directly from industry to the FSA (or Public Health England in relation to possible microbiological contamination) unless information has previously been sanitised (i.e. anonymised from any direct attribution to a particular company or source). I am not convinced that this is a role for the FSA.

Recommendation 10 - I believe that the collection and ‘sanitisation’ of information from industry –through the maintenance of a confidential source register - needs to be undertaken by an organisation with its own legal status supported directly by industry, without recourse to the resources of Government. Its purpose would be to convert information into intelligence that

5 <http://www.food.gov.uk/multimedia/pdfs/board/board-papers-2013/fsa-130704-prof-troop-report.pdf>

can be disseminated both to Government and across organisations in competition with one another.

Recommendation 11 - I suggest that this industry focussed information gathering facility needs to be appointed by its contributors in such a way that it can rely on legal privilege in receiving information and is trusted – again through legal privilege - to protect market sensitive disclosures from being shared with competitors.

Recommendation 12 - Giving information to this industry service should be free, but the costs associated with the running of the service should be paid for by subscription from those who want to share in the intelligence it produces. The service must share intelligence with the FSA as a protected disclosure unless there is clear evidence that suggests that the public health would be best and most immediately served by immediate full and open public disclosure. It should be as open as possible about its activities; perhaps through the mechanism of an annual, or more regular, public report.

Recommendation 13 - In addition to this new ‘safe haven’, I am firmly of the view that the FSA should take the lead in discharging the *Government* role in the collection, analysis and distribution of information and intelligence from a wide range of sources (including governmental e.g. local authorities, Police, EU counterparts).

Recommendation 14 - I consider that the lead role for supporting research into authenticity testing, and policy over compositional labelling should revert to the FSA, so as to have closer links to its operational activities. Defra has a justifiable interest in Country of Origin Labelling, Protected Geographical Indication (PGI) and Protected Designation of Origin (PDO) policy and should keep its responsibilities in this area. Research into authenticity and the development of information to support clear labelling about composition however need to have closer links to delivery. I suggest that the FSA is the most appropriate body for this and should take back the lead now, but its staff must work closely with Defra and industry in doing so.

Recommendation 15 – The FSA should support a national food economic intelligence hub, with appropriately qualified staff that can study trends in commodities, commodities futures trading and differential pricing across commodities with the potential for adulteration. This intelligence hub should analyse information from multiple sources including international evidence, information from testing and sampling programmes and consider whether these offer new opportunities for criminal profits.

2.3.6. Through this hub, the FSA needs to develop its links with the research sector to produce and share ‘horizon scanning’ analyses of the commodities or markets considered at most risk from crime due to trade route complexity (e.g. Spanish

olive oil bottled in Italy), commodities price fluctuations (e.g. cocoa), crop failures (e.g. wheat), fishing restrictions, the development of premium markets through labelling (e.g. Aberdeen Angus burgers), and criminal ingenuity (e.g. melamine in milk).

Recommendation 16 – The intelligence produced by both the industry and regulator led information bodies suggested above will need rapid dissemination if it is to be useful. Industry trade associations are an obvious ally. In addition, I recommend the FSA develop close links with local authorities and the advisory services they provide for local retailers. Likewise, the FSA should be proactive with primary authorities in using their close relationships with major companies as a means of getting information to them.

Recommendation 17 - It also seems sensible for ‘web crawling’ services to be commissioned as a specialised service. This service should be supervised by the FSA and shared with industry, so that a single service collates news reports from around the world to spot any new frauds that are being enabled by new technology and innovation.

Recommendation 18 - I believe industry will and should contribute to the cost of the information services outlined above, which would add to or confirm any intelligence they develop in-house or share through an industry safe haven.

2.3.7. The information collected substantially reduces industry’s commercial risk. I want to think further about the ways and means of providing this support and will return to this issue in my final report. A model may be the current Primary Authority scheme where local authorities may charge for special advisory services within an agreed framework.

2.3.8. Further on in this interim report I discuss the need for a specialist food crime investigation and enforcement unit. Clearly this unit will need a close association with those who collect, collate and protect intelligence to have sufficient standing to share intelligence from other authorities involved in criminal justice and offer a form of protected disclosure to whistleblowers. I think these needs are best met if the unit is hosted within the FSA and can sit alongside the arrangements described above.

2.3.9. Where industry does have information to share with enforcement authorities, it should do so without fear of reprisal either by the authorities or by the media. If necessary, a form of protected disclosure would be in the public interest at that point. The FSA in turn will share information as appropriate with the new food fraud unit within DG Sanco of the European Commission, which is a welcome EU development that will facilitate sharing of information on food crimes.

2.4. Laboratory Services

Those involved with audit, inspection and enforcement must have access to resilient, sustainable laboratory services that use standardised, tested methodologies.

2.4.1. As with all crime, the prevention, detection and, if necessary, prosecution of food crime hinges on multi-agency collaboration, of which forensic science plays a key part. Food fraud is often undetectable except by scientific analysis, so there is common acceptance of the need for testing, supported by investment in methodologies which minimise disruption of trade.

2.4.2. My thoughts on the laboratory services undertaking chemical analysis and food authenticity are focused on three areas; the standards of analysis, the way in which sampling is conducted (e.g. random or risk-based sampling) and the availability of laboratory services themselves. Each has its own challenges, and the recommendations I make below reflect that. Some are appropriate to be taken forward now; others will require other actors to come forward and provide leadership in this area. Microbiological examination of food is undertaken by Public Health England and the recommendations I make below do not extend to microbiological testing.

Standards of testing

2.4.3. As a scientist, I am strongly of the view that the processes and methodologies used by Government and industry to ensure the integrity and assurance of food should be undertaken according to acknowledged standards and agreed performance criteria. An efficient scientific service must review and adapt its testing methodologies regularly to keep up to date with possible frauds and detection techniques.

Recommendation 19 - The laboratory community testing for food authenticity should standardise their approaches.

2.4.4. This does not mean that innovation should be stifled, but as new approaches come into general use good measurement science practice must be observed. This will be best achieved within a UK National Reference Laboratory (NRL) or NRL network for authenticity.

2.4.5. I think it essential that all parties ensure that scientific assessment produces consistently valid results that are traceable and comparable and with an associated measurement uncertainty. Likewise, these assessments must be undertaken by people considered competent according to acknowledged principles and delivered according to standardised methodologies and

performance criteria⁶; even if the conduct and scope of audit and inspection varies according to local circumstances and customer variation.

2.4.6. One or more centres of excellence must take the lead in this effort to develop effective, robust testing programmes. These centres should work to commonly accepted approaches for the development of national standards and specifications, such as those championed by the European Committee for Standardisation (CEN). I have recommended to the European Commission (see letter to the Government on EU regulations in Annex F) that an EU Reference Laboratory system needs to be identified for food authenticity testing, and that this in turn should prompt the development of a National Reference Laboratory (NRL) network in the UK. Due to the varied scientific techniques applied to authenticity testing, it is likely that a network of laboratories co-ordinated by the FSA will be required.

2.4.7. I welcome the work in progress by the Analytical Methods Working Group in developing a framework for standardising authenticity testing, but more work needs to be done on this as a matter of priority.

Recommendation 20 - Officials from Defra's current Food Authenticity Programme, Food and Environment Research Agency (FERA), LGC⁷ and the FSA should work with the Elliott Review to develop a framework for standardising authenticity testing, ahead of the establishment of an EU-RL in this area.

2.4.8. In response to the horse meat incident there has been a considerable increase in testing for authenticity. Some of this is carried out on a random basis, whilst other testing is targeted and planned.

2.4.9. Risk-based intelligence should be used to support targeted test sampling by industry and regulators i.e. where the information hub produces advice about a strong likelihood of fraud in a particular commodity⁸, then resources should be directed towards the gathering of evidence. Alongside this, a 'random' testing programme, across a wide range of commodities known to be vulnerable to fraud, should also be conducted by both industry and regulators. I would expect this to apply across the whole food supply chain, not just end-product sampling. The food industry should be encouraged to co-operate with local authorities in such schemes to reduce the cost burden and broaden the scope of testing; there

⁶ Eurachem Guide, 1998, 'The Fitness for Purpose of Analytical Methods: A Laboratory Guide to Method Validation and Related Topics' which also advocates laboratories act to an agreed requirement using fit for purpose methods and equipment, under well defined quality control and quality assurance procedures, with regular independent assessment of their technical performance so that they are able to demonstrate that they can perform the analysis properly

⁷ As the National Institute for Chemical and Bioanalytical Measurement

⁸ Including probability of criminal activity, profit margin or scarcity of a particular product, premium claims on labelling e.g. country of origin, water and fat content, animal welfare, organic status, feed purity and breed.

are numerous examples that demonstrate the effectiveness of this kind of approach⁹.

Recommendation 21 - Guidance should be developed by the current Food Authenticity Programme and the FSA, setting out the considerations that need to be taken into account when introducing and developing programmes of surveillance. This guidance should feed into existing and future national sampling programmes.

Laboratory structure

2.4.10. Apart from the need for standardisation in approaches and methodologies, laboratory capacity to support testing, especially in times of crises, is a growing issue in this country. Concerns about the deterioration of laboratory capacity have been developing for a long time and have been reflected in other recent reports¹⁰; I share these concerns. Resilience and sustainability need to be accepted as common goals and joint responsibilities in the organisation of laboratory services. Sending samples abroad for analysis is not always the answer; if the crisis is European wide then UK samples may join a queue alongside those from other Member States.

2.4.11. Official laboratory services¹¹ serving the public sector are showing clear signs of strain. The priority for all UK laboratories supporting food safety and authenticity analysis, whether public or private is not just to survive the short and medium-term future of budget constraints but to benefit from current opportunities for innovation and transformational change. With this in mind, I have considered the possibility of leaving laboratory provision for authenticity testing to develop as market forces dictate. However, there is a very real risk that this will result in a system consisting of solely private laboratory provision. In my view, this would not be a satisfactory result. It is the Government's responsibility to provide resilience in the event of an emergency and to have the facility to provide a benchmark for standards of testing.

2.4.12. I firmly believe that in order to ensure the continued development of standardisation in the technical approaches that support food authenticity and safety testing, we need a healthy mix of private and public sector laboratory provision. There are benefits to ensuring the survival of a public sector 'spine' to laboratory provision supporting food testing; a resilient, competitive, modernised, public sector would prevent laboratory provision becoming monopolistic and

⁹ An industry driven scheme operated by the Northern Ireland Grain Trade Association demonstrated how such industry wide co-operation can be cost neutral but increase testing levels significantly and in a much more strategic manner.

¹⁰ <http://www.nao.org.uk/report/food-safety-and-authenticity-in-the-processed-meat-supply-chain/>

¹¹ The Official Control Laboratory System for Food and Feed, OCL, see Article 12

Regulation (EC) No 882/2004 of the European Parliament and of the Council of 29 April 2004 on official controls performed to ensure the verification of compliance with feed and food law, animal health and animal welfare rules.

would avoid the risk of market failure. Public sector provision can also guarantee that information flows to the central competent authority effectively. We need to ensure that future laboratory provision is a national asset, and supports food security within the UK in the event of a major incident.

2.4.13. Local authorities are already focusing on improving service, delivery and access to their laboratory services through a range of alternative business models such as integration and partnerships, new commissioning and procurement models, creative working and management techniques, and technological improvement. I commend these efforts.

2.4.14. Private sector delivery of the Official Control Laboratories (OCL) system has demonstrated that through establishing a 'critical mass' of Public Analysts operating as a team and better utilisation of equipment and buildings, efficiency gains are possible. I believe that the current local authority provision could benefit from these efficiencies. The creation of a modernised, integrated, national 'Public Analyst Service', working alongside private sector provision and brought about by the merger of local authority laboratories with another public sector food or enforcement analytical or investigatory service, would offer considerable added value. Such a move, with strategic rationalisation, would secure a scientific service that is accustomed to dealing with local issues and understands their context, but supports nationally planned programmes. This would create a sustainable national asset, comparable with Public Health England's microbiological laboratory network and there is a significant degree of common ground between potential partners when it comes to investments in plant, equipment, and staff development. The benefits of such a service would include:

- Securing a world class national asset to secure public trust in regulatory science discharging European responsibilities, providing an authoritative scientific voice on food fraud and generating intelligence for local authorities and central government. Such a service would also give the UK a practice-based scientific voice on food fraud on the European stage and capable of contributing to a National Reference Laboratory network;
- Creating partnerships capable of responding nimbly both to emergency situations and future developments, offering immediate access to dedicated scientific support for food and feed safety, authenticity problem solving and method development;
- Development of a robust, sustainable service, that provides high quality scientific and advisory services, has access to top class instrumentation, research, data capture and, through economies of scale, rapid turn-around of results and continuous improvement;

- Ability to secure long-term succession planning through enhanced staff career development;
- Providing locally accessible expertise to guide sampling, interpretation of resulting data on a whole regional or UK basis, planning for and demonstrating tangible national beneficial outcomes of improved food and feed safety and authenticity for public protection;
- ability to provide assistance in-factory and on-site audits, inspections and investigations;

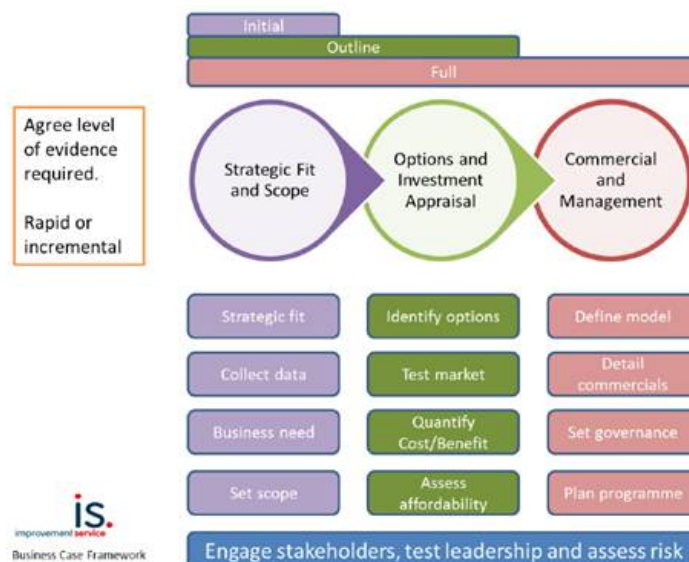
I appreciate that there are multiple players here, but in order for an initiative like this to be successful, someone needs ‘grasp the nettle’ and take the lead.

Recommendation 22 - Under the combined leadership of the FSA and DH, and facilitated by the LGA, PHE, APA and Defra should work with the Elliott Review to consider appropriate options to secure the merger and rationalisation of current public sector laboratory provision around food standards.

2.4.15. This could be based on the Scottish Shared Scientific Services Project which is currently carrying out research and considering options for creating a shared service to deliver scientific services in Scotland. A diagram is included at figure 1 below. More information can be found at:

<http://www.improvementservice.org.uk/scottish-shared-scientific-services-programme/>

Figure 1 Scottish Shared Scientific Services Project:



2.4.16. I suggest this begins with the tendering of a research project, seeking interested consortia to bid for developing a model addressing scientific services, estates management, Transfer of Undertakings Protection of Employment

(TUPE)¹², pensions and other governance issues to bring about such a merged service. I believe that, in order to prevent the imminent collapse of the public sector laboratory system, any such project must be completed by 2015.

Recommendation 23 – (i) This work [to explore the possibility of a merger of Local Authority laboratories] should be overseen by an external organisation to act as a broker. I suggest a professional body such as the Institute for Science and Technology could fulfil this role (ii) This project should also be subject to appropriate public scrutiny; I believe the House of Lords Science and Technology Committee would be an appropriate body to undertake this scrutiny.

2.5 Audit

Industry and regulators must give weight to audit and assurance regimes, so as to allow credit where it is due; but also try to minimise duplication where possible. Audits of food supplies by producers, storage facilities, processors and retailers are undertaken both routinely and randomly.

2.5.1. Industry and the FSA need to do further work to standardise, accredit and give weight (through ‘earned recognition’) to audit and assurance regimes. For the food industry, the FSA has taken the lead in setting out the standards to which producers and food processors should adhere in complying with regulation. To an extent this has been eclipsed by a growing private sector audit and testing industry which has thrived on offering variety in audit approaches. This is particularly noticeable in the food processing sector. The number of hygiene audits commissioned by the major retailers undoubtedly offers insight into the processes and ingredients managed by processing and packaging companies. However during the review I have encountered many with the view that the number of audits is not achieving the intended purpose.

Recommendation 24 – The FSA and BRC should work with industry and accreditation bodies to better coordinate and standardise audit to reduce burdens on producers and suppliers, and improve outcomes.

2.5.2. Decisions made as part of the procurement and contracting process are crucial to the exclusion of food crime; but it is the auditor who safeguards the ongoing adherence to contract terms and legal obligation. Their training and professional practice therefore needs to be consistent with recognised standards of good practice if their work is to be trusted by the sector and by the FSA so that the overall burden of their activities is minimised. The British Retail Consortium (BRC) has made a welcome start in this area, but progress needs to accelerate now.

¹² <https://www.gov.uk/government/publications/draft-transfer-of-undertakings-protection-of-employment-tupe-regulations-2013>

Recommendation 25 - Buyers, auditors and inspectors need to receive specialist training and advice from their employers about critical control points for detecting food fraud or dishonest labelling in the foodstuffs considered to be medium and high risk. This should be delivered in much the same way as they are trained in food hygiene issues.

Poor Quality Audit

A large scale food preparation company described an example of a very poor audit by a private third party audit company. During the course of the audit the company noticed that the auditor was struggling and did not appear sure of what was required to conduct the audit properly. The auditor became distressed having failed to identify any non-compliance against the audit standard. The company questioned the auditor and it transpired that the auditor had limited experience in other industry sectors, and had only audited one other food company. As the auditor was in a distressed state the company decided to draw up a list of minor non-compliances to enable the auditor to complete the audit.

Recommendation 26 - Audit processes and methodologies used in the scrutiny of food preparation and processing should continue to be established by industry according to agreed standards, and criteria. These criteria and standards should be rooted in British Standards Institute approved methodologies.

2.5.3. This in turn should help deliver the ambitions of the '*Focus on Enforcement*'¹³ programme established by the Department for Business, Innovation and Skills (BIS). This programme has already recommended that basic audit criteria should be agreed by industry with Government (in this case, the FSA) to ensure they can contribute to regulatory assurance. If such agreed standards can be put in place, the frequency of audits to food producers who show best practice could be reduced and thus reduce their cost burdens.

2.5.4. Another reason for ensuring further standardisation of audit methodologies in the food industry is to enable resources to be released for other purposes, such as surveillance and risk based sampling and testing. The conduct and scope of audit and inspection may vary according to local circumstances, but reliance on standardised specifications and criteria will cut 'noise' significantly.

2.5.5. Paper trails and on-site scrutiny do not reduce the need for conventional audit systems to be enhanced by the addition of anti-fraud measures and testing. We have observed some very good audits; but also some evidence of requirements being imposed by auditors that seem futile or unreasonable. In addition, many audits of food supply networks involving cold stores or cold haulage seem incomplete and inadequate, since the current approaches – which are based on

¹³ <http://discuss.bis.gov.uk/focusonenforcement/>

hygiene concerns – give little to no attention to part of the supply chain that has been demonstrated to carry very significant security risks in terms of allowing opportunities for substitution. The review will be looking at this in more detail in the final report

2.5.6. I have found a great appetite within industry to improve and expand upon the standard audits developed by organisations such as the BRC, particularly in relation to those companies that produce ‘own brand’ foods in the name of the major retailers. Sometimes this has merely increased the paper burden; prompting the comment that a paper based system is not worth the paper it is written on. Often the paper burden has increased accidentally as a by-product of the laudable desire to send representatives physically into factories.

2.5.7. There is no doubt in my mind that excessive and often duplicative third party and retailer announced audits place an unnecessarily high burden on food operators, particularly those supplying retailer brand products. I have heard anecdotal evidence of suppliers being audited on an almost daily basis with the result being that significant business resource is tied up in preparing for and facilitating each inspection. I believe that by agreeing rigorous standards for unannounced audits, which give greater weighting to detection of food crime and fraud, the number of audits could be significantly rationalised since retailers would be more inclined to accept third party accreditation.

2.5.8. Improvement in audit is a critical part of strengthening controls. Audits are organised by and for those who sell food on to the ultimate consumer, and improvements in audit are their responsibility. So I welcome the fact that there are clear signs of change already in hand, both in increased demands for documentation of products and by changes in communications between industry and consumers about traceability and security of supply.

Unannounced audits

Steps already being taken by industry

In July 2013, Asda announced plans to introduce unannounced BRC audits for all of its Asda brand suppliers starting 1st October 2013. Suppliers have reacted positively to the change, reporting that unannounced audits have actually saved time as business resources that were previously invested in preparing for audits have been better employed elsewhere. Asda is the exception rather than the rule, however, and the vast majority of third party and retailer audits are still undertaken on an announced basis.

2.5.9. I would like to see other standards bodies join the BRC in offering an unannounced option as part of their package, so that unannounced audits

become the industry norm unless there is a compelling reason to provide advance notice to businesses.

Recommendation 27- The food industry moves to reducing the number of announced audits undertaken and replacing them with unannounced thus creating the opportunity to reduce the overall audit burden on those who earn recognition for excellence.

2.5.10. Currently there is no requirement on auditors to carry out product sampling as part of a standard food safety audit.

Recommendation 28 - Third party accreditation bodies are ideally positioned to collect and analyse food samples. I would like to see surveillance sampling to the standards set out in section 2.4, incorporated into unannounced audits, to be coordinated by the standard holder. This would act as an additional deterrent to food businesses knowingly trading in fraudulent food.

2.5.11. The review I am undertaking concerns the supply of all types of foods but undoubtedly, due to the attention arising from the horse meat scandal the main issues that many wished to discuss with me and the review team was red meat fraud. I describe below areas of particular risk of meat fraud. Further detail, including the mitigating measures to be considered by a food business, are in Annex G.

Cold-stores

2.5.12. Cold-stores are climate controlled warehouses that store meat and meat products, at specific temperatures (for meat for human consumption, this is normally minus18° C. The type and species of meat stored is at the owners' discretion, so they can store meat of all kinds from a number of different sources, from several species and from one or several suppliers.

2.5.13. Cold-stores are expensive operations to run, but even more so if they are less than full to capacity. Some cold-stores may be situated (co-located) on the same site as an abattoir or meat cutting plant, in which case FSA staff will be on site during business hours to carry out official controls and other functions.

2.5.14. A 'stand-alone' cold-store (e.g. on an industrial estate) will be subject to checks by the local authority. They are assumed to be lower-risk than manufacturing or processing plants for inspection purposes, and so may be subject to infrequent inspections. Inspections that do take place also present practical difficulties when attempting to detect fraud; they may be announced, and not usually fraud-aware. Both local authority and private sector audits are generally more concerned with food hygiene and safety than with fraud. In both cases even if they were looking for it, evidence of fraudulent practices would be extremely difficult to detect. At minus 18°C, the environment for inspection is also extremely inhospitable. A lot of stored material is not easy to access without fork

lift trucks, and there is ample opportunity both to hide suspect material and to make thorough inspection inconvenient. As a result, for most of the time, any operation undertaking fraudulent activities could undertake thawing, re-freezing, re-packaging, re-labelling and re-strapping out of hours and at weekends and carry on without any great fear of detection.

Case Study on Profits from Illegal Operations in a Cold Store

Large scale food fraud seldom comes to notice which is why this example dates back to 2005. Irregularities were noticed when a shipping company notified Department of Agriculture and Rural Development in Northern Ireland (DARD) portal inspectors of a suspicious container that had arrived in Northern Ireland from Asia. This led to a follow-up operation at a cold-store. A warrant was obtained and local police helped secure safe access to the premises. Initially it appeared that there were only a few minor infringements in relation to the 'temporary' storage of a few pallets of 'category 3 animal-by-product' (Cat 3 ABP). However the presence of an industrial shrink-wrapping machine raised concern. It led on to the discovery of other packing and labelling equipment and materials including a copious supply of forged veterinary health marks purporting to originate from a variety of meat plants across the EU. It became evident that the primary business of the cold-store was repacking and re-labelling as fit for human consumption Cat 3 ABP meat.

There was an advertisement encouraging others in the industry to cut their losses by sending out of date stock to a 'Government approved' relabeling service. Evidence was found to demonstrate extensive criminal planning. At that time (or currently) there was no capacity for the major criminal investigation that the evidence and the criminal profits justified. The local Magistrates Court was asked to condemn seized meat and animal by-products as part of legal proceedings.

Meat prices are volatile and so the following calculations are conservative approximations. The meat was worth about £1/kg as pet food, while if sold as medium category mince for human consumption it would be worth £3.50/kg. As there was a large quantity of beef fillets it is reasonable to assume the average price would have been at least £4/kg, on which basis the criminal profit on the meat in the cold store on that day was in the range of £2.5m to £3m. It was strongly suspected that material found was part of an ongoing illegal business but for lack of the necessary investigative resource this was not pursued. The many leads that were opened into food crime networks at this time were not followed up.

Recommendation 29 - All sectors of the food industry that purchase directly or indirectly from cold-stores should acknowledge the extent of risk posed by cold-stores and only store goods in, or purchase goods out of, those cold-stores that are audited and inspected regularly, including thorough,

unannounced audits outside of regular business hours. I also recommend that where they store food materials in cold-stores, other than their own, that they take all necessary measures to ensure that those goods cannot be tampered with during storage.

The meat commodity market and traders & brokers

2.5.15. Traders and brokers will buy and sell meat of any quality or quantity.

Most traders don't have physical possession of the meat they buy and sell. They trade from an office, even over a mobile phone while the meat will more than likely be held in a cold-store. They may never own the meat, but merely arrange the deal, and may thereby consider that they fall outside the definition of a "food business operator" and escape both the requirement to register as such and the consequent monitoring of their activities.

2.5.16. For the most part, their main concern will be price, and the price paid for a block of frozen meat may reflect its doubtful provenance. I have been informed by a number of sources that there are very ethical brokers who are always careful of what they buy and sell but a number appear, to a greater or lesser extent, to be indifferent to whether they are trading in inauthentic meat or authentic meat providing it does not impact negatively on their business. I have determined meat traders and brokers as being highly vulnerable links in the supply chain of meat. The information gathered from a number of sources indicates that large amounts of meat of dubious origin and quality remains available for purchase through traders and brokers.

2.5.17. There is a real danger that due to ever increasing pressures to keep the costs down careless procurement practices or simply a need for a cheaper product allows this material to enter the UK food system. Some of this meat may well not be fit for human consumption.

2.5.18. There have been attempts elsewhere to impose tighter regulation on dealers, brokers, traders and their multitude of agents. However, the complexity and global nature of the network, along with the informality of much of the business that takes place makes this difficult.

Recommendation 30 - Accreditation bodies should develop new standards that cover traders and brokers who are currently subjected to little scrutiny by those responsible for either official controls or assurance of private standards. Such standards must be fraud aware and incorporate disciplines such as forensic accountancy in order to guarantee their rigour. The adoption of new standards for brokers and traders will allow food retailers greater visibility of their entire supply chain and not just production facilities.

Recommendation 31 - Once the standards for traders and brokers are established, these should become a condition of contract.

Transportation of meats

2.5.19. The transportation of meat products requires specialist refrigerated lorries and is another point at which the processor/manufacturer/retailer may not have direct control and oversight of what is taking place. These vehicles are generally not sealed (although excellent examples of controls were evident during my recent visits to some meat premises) leaving them vulnerable to tampering during journeys.

2.5.20. Vehicles transporting meat within the EU/Schengen area are only required to be accompanied by a CMR¹⁴ International road consignment note, which confirms that the haulage company has received the goods and has a contract from the supplier to carry them. These consignments are then not subject to any border controls or veterinary health checks. They contain consignment and journey details, a minimal description of the load, the identity of the haulier and a tax reference code; these consignment notes are not designed to prevent food crime. For loads which are split or reassembled consignment notes may be written anywhere at any time.

Recommendation 32 - Industry must acknowledge the extent of risk of food crime being perpetrated during transportation. For their own loads, retailers, processors and manufacturers must apply and check tamper-evident seals at every stage of the transport process. If using group haulage, industry must make their own products tamper-evident.

Recommendation 33 - Industry should use their own hauliers, or hauliers that are properly audited/ inspected to their own criteria which incorporate anti-fraud measures.

Frozen blocks of meat

2.5.21. Smaller pieces of meat including 'trim' and fat are stored in frozen blocks and can be wrapped individually or wrapped as a pallet-load. Meat trim is classified by its percentage of 'visible lean' – so the less fat you can see the higher quality it is judged to be. These blocks are highly susceptible to fraudulent interference with low risk of detection. Lower quality meat trim can be made to look like higher quality trim by the addition of additional lean meat, such as red offal (e.g. heart, lungs etc.), lean meat from cheaper species, or lean meat reclaimed from meat that is not suitable for human consumption. When in frozen blocks it is hard to detect fraud and only when thawed can substitution be more easily identifiable. As modern processing plants handle frozen blocks mechanically there may be limited opportunity to undertake effective inspection and sampling.

¹⁴ <https://www.gov.uk/shipping-goods/cmr-note>

Recommendation 34 - I recommend that industry acknowledge the extent of risk associated with frozen blocks of meat and introduce effective inspection combining thorough and unannounced audits and include regular sampling (surface and core).

Animal by-products

2.5.22. Much of the meat which is eligible only for pet food looks no different to meat which is fit for human consumption. This meat is classified as lower risk Category 3 animal by-product (ABP). Purchase of such meat at pet-food price for resale as meat fit for human consumption would be extremely profitable. Where, as is occasionally the case, Category 3 ABP cold-stores are adjacent to licensed cold-stores holding meat and meat products for human consumption the opportunity for fraud is greater and the fraudulent activities much less susceptible to detection.

2.5.23. Category 1 animal by-product is deemed to be high risk; it consists largely of those parts of the carcass which represent a potential disease risk to humans. It is eligible only for rendering and incineration. I have been told in confidence where Category 1 and Category 3 ABP rendering plants occupy the same or adjacent sites that significant amounts of Category 1 material (which is expensive to dispose of) is being treated as Category 3 material (which can be sold at a profit). I have, however, been given no direct evidence to date that Category 1 material is finding its way into the food supply.

2.5.24. Auditing the proper running of ABP cold-stores is the responsibility of Animal Health and Veterinary Laboratories Agency (AHVLA) who conduct infrequent inspections based on risk. However these are of a type and at frequency unlikely to detect or deter fraud.

Recommendation 35 - Both industry and Government acknowledge the risks of substitution of meat not fit for human consumption entering the human supply chain and introduce anti-fraud auditing measures that will make such substitutions more easily detected.

2.5.25. I believe that a review by industry of its audit approaches will create extra capacity, to allow greater scrutiny of high risk subsidiary facilities - such as cold-stores; and security controls over freight transport.

2.5.26. The enthusiasm of industry for audit is welcome, since the local and central government agencies that are charged with enforcing regulations and prosecuting criminality in the food industry have been struggling in the current economic climate to maintain activities at or beyond current levels and in the opinion of many commentators are no longer even meeting the minimum activity required. As discussed earlier, laboratory services serving the public sector are

likewise showing clear signs of strain. I am persuaded that current shortfalls in local authority regulatory activity will need addressing if we are to demand more attention to be paid to integrity, because that attention cannot be given at the expense of current performance relating to basic food hygiene.

2.6 Government support

Government support for the integrity and assurance of food supply networks is kept specific, measurable, attainable, realistic and timely (SMART).

- 2.6.1. Regulatory offences may be simple omissions, but those intent on fraud will invariably commit them. Regulatory enforcement is the front line in detection of, and protection against, food crime.
- 2.6.2. The local authority landscape is complicated, and regulatory services for food controls may have their own department or be allocated with other functions. Local authorities are required to discharge their statutory responsibilities, but have the discretion to determine their own priorities and budgets. In England, food hygiene is enforced by District Councils; with composition and labelling enforced by County Councils. Unitary Authorities (including London Boroughs) have responsibility for both functions and may choose to combine the roles and workforce or run separate operational delivery teams. While localism is the main strength of this approach – authorities can concentrate on supporting local business – this can also be the main challenge when significant criminal gangs move into food crime or when consistency of approach is called for across geographical boundaries. Such enforcement activity is also very vulnerable when local authority services are cut to – and in some cases beyond – the bone.
- 2.6.3. I have considered whether I should recommend that the responsibilities of local government relating to food supplies should change and have concluded that I should not. It is clear to me that small businesses in particular receive clear benefits from the educative and support activities of local authority officers. For minor non compliance with regulations, the growing reliance of these officers on the Magistrates Courts seems appropriate. This relates to the issue of improvement notices and court orders to force compliance; and it seems appropriate in cases of minor infractions to resort locally to a court holding businesses who do not improve in contempt.
- 2.6.4. Scarce resources need to be used effectively by local authorities, and this suggests that mutual aid between local authorities is justified when it comes to undertaking more complex inspections and enforcement.
- 2.6.5. I welcome the Primary Authority scheme for food businesses with multiple locations, as these offer greater opportunity for collaboration with local authorities. I also recognise the developing role of the new National Trading Standards Board (funded by BIS, and supported by the Association of Chief

Trading Standards Officers (ACTSO) which undertakes regional co-ordination of local authorities for certain activities.

2.6.6. I am persuaded that all parties want a sustainable approach to local regulation that can deliver real benefits for businesses; but we also want to ensure communities are protected. Local authorities want the freedom, flexibility and tools to deliver their own objectives, but when it comes to food supply networks I think it is clear to all that local authorities also need to consider information about national priorities alongside their needs, risks and business history of their area. Occasionally, wider coordination of effort is needed and local authorities need to follow the lead of another agency. The obvious agency for this purpose is the FSA.

2.6.7. When the FSA was established in 1999, its' primary purpose was to protect consumers. It was tasked with setting policy relating to public health, food safety, and other interests of consumers in relation to food; and was authorised to obtain, compile, keep under review and publish information about matters connected to these issues. It points industry and local government – which takes the primary role in inspection and enforcement – towards available standards such as HACCP, and through publishing codes of practice, and by reporting publicly on local authority regulatory activity.

2.6.8. Since 2010, the FSA has developed an operational and enforcement function through taking direct responsibility for approval of certain meat establishments and meat inspection duties (primarily in slaughterhouses and cutting plants).

2.6.9. For matters other than meat inspection, legislation authorises local authorities to enforce food hygiene and food standards regulations. The FSA has prescribed powers to step in as a last resort, where a local authority is judged to have failed. The FSA acts to influence and support local authority activities by the provision of statutory advice and the offer of grants for specific monitoring activity. The FSA has power to direct local authorities to take any necessary steps to ensure that their regulatory activities comply with the statutory Food Law Code of Practice. The FSA can also issue Practice Guidance to which local authorities must have regard. Local authorities must sign up to the Framework Agreement on Local Authority Food Law Enforcement which underpins FSA audits of how local authorities are undertaking their statutory duties.

Recommendation 36 – (i) As all parties become more aware of opportunities and potential for food fraud/crime, it would be sensible for the FSA and local authority staff to work to develop a coherent approach across all areas of hygiene and standards, learning from each other so that businesses see no distinction between local authority and FSA regulatory approaches. (ii) This could be effected through improved guidance and training to enforcement

officers coordinated between FSA with the professional bodies (including CIEH, TSI, the National Trading Standards Board).

2.6.10. As FSA staff have a permanent presence in slaughterhouses and co-located cutting plants, they are ideally placed to identify and share intelligence about meat fraud/crime issues with industry and other regulators.

2.6.11. I have considered the Food Standards Act 1999, which determines the statutory functions of the FSA. It does not offer the FSA a statutory power to direct the activities or spending decisions of local authorities. However I do not think that new statutory powers are necessary. The FSA has considerable positional power, should it choose to use it more directly. When it comes to targeted enforcement activity, leadership is often the provision of clear and specific advice which other parties can choose to accept as instruction.

Recommendation 37 - The FSA should work with the NTSB, TSI and CIEH to develop a model for coordination of local authority high profile investigations and enforcement. This requires a skills set that is distinctly different from more routine enforcement hierarchy, starting with business support and advice on good practice.

Governance of FSA

Intergovernmental relationships

2.6.12. To ensure that the FSA is effective and credible in this role, it needs to retain its current independence from political direction, and improve political awareness and operational agility. It needs to develop better leadership for delivery efforts across Government.

2.6.13. As part of my review I have considered whether the FSA can best continue to effectively undertake its statutory functions as a non-ministerial department. Options for change include the FSA becoming an executive agency or Non-Departmental Public Body. One example is the Environment Agency which is directly responsible and accountable to Defra Ministers; another model is Public Health England, which operates at arms-length from the Department of Health (DH) but recognises DH's clear sponsor role and public health responsibilities. Implementing those options would require legislative change to the Food Standards Act 1999. However, I consider that the FSA's independence would be compromised by changing its statutory relationship with Government.

Recommendation 38– The FSA should remain a non-Ministerial department but changes to its governance arrangements are necessary to make it a more robust organisation.

2.6.14. I was surprised during this review to discover that there are no arrangements in place for regular high-level round table meetings between the FSA Chair and both the Secretaries of State for Health and for Defra. FSA is accountable to Parliament through Health Ministers; Defra currently has the policy lead for food authenticity and composition which FSA has to oversee local authority enforcement. There are other issues of mutual interest that may occasionally draw in the Ministers of other departments. Given the status of the FSA, I consider such joint, cross Government meetings essential if the FSA is to both set, and have support for, an appropriate strategic direction.

2.6.15. I do not think the FSA's independence would be affected in any way by putting in place formal arrangements for such meetings, which would support those currently held at official level. Indeed, I think it would help deal with my concerns that the FSA has become a rather isolated and inward-looking organisation. It would also ensure that the FSA can be more confident that Ministers will support it during periods of difficulty, such as during the horse meat incident.

Recommendation 39 - The FSA must engage, simultaneously and regularly, at a very senior level with all the other Government departments it shares interests with. A suitable forum e.g. a 'National Food Safety and Food Crime Committee' must be developed to cover topics including the content of FSA's business plan, its longer term strategic plan and briefing on emerging issues. How those discussions would be conducted should be set out in a Memorandum of Understanding.

Recommendation 40 - The FSA and Government should consider the benefits of Government having the opportunity to comment on the FSA's longer term strategic plan. This approach would help ensure that an independent and robust FSA would have the added benefit of a partnership approach with Government in how it takes forward its role to protect the interests of consumers.

Appointments

2.6.16. Effective leadership of the FSA by its Chair and its Chief Executive is fundamental to ensuring it can undertake its statutory functions effectively and that it has the confidence of the wide range of stakeholders with which it deals. Under the Food Standards Act 1999, the appointment of the Chair and Deputy Chair is made by the Secretary of State for Health and Ministers in the Devolved Administrations acting jointly.

2.6.17. This approach, which requires the relevant authorities to act jointly, is unusual (normally the requirement is simply to consult). It reflects the fact that the FSA is a UK body. The Devolved Administrations rightly have a role in

defining the job description and person specification for the Chair (and Deputy Chair) to help ensure candidates with the right skills and experience are recruited. Candidates are much more likely to secure support of those agreeing to the appointment when they meet the agreed criteria.

2.6.18. I urge the FSA to ensure that the skills of its Board always reflect its' wide ranging responsibilities. That means ensuring it always has, for example, members with wide expertise in food safety, authenticity, laboratory and scientific issues and representing consumer interests.

2.6.19. The FSA is unusual in that unlike many other non-ministerial Departments the Chief Executive is not appointed but approved by Ministers, nor is the Chief Executive a formal member of the FSA's Board. This should not normally cause any operational problems where there is a close working relationship between the Chair and the Chief Executive and where the Chief Executive attends Board meetings and is fully involved in decisions by the Board on strategic direction. However, I believe there is the potential for the Chief Executive to feel exposed, in particular as the FSA's Accounting Officer, if the Board were to decide to exclude the Chief Executive from decisions which are key to meeting statutory duties. The Chief Executive can also feel particularly exposed when a permanent Chair has not been appointed, as has been the case for many months this year.

2.6.20. I am satisfied that that this aspect of the FSA's governance arrangements, although anomalous, does not mean the organisation is unfit for purpose as long as all parties maintain good working relationships. For this reason I do not think there is any need to change the Food Standards Act 1999 to make the Chief Executive and other key executive officers formal members of the Board. However, I do urge the FSA Board to make a formal commitment to the Executive team that they will continue to be fully involved in all key decisions which impact on the organisation's statutory functions and will always be involved with the FSA's strategic direction.

2.7 Leadership

There is clear leadership and coordination of investigations and prosecutions; and the public interest is recognised in active enforcement and meaningful penalties for significant food crimes.

2.7.1. There needs to be clear leadership and coordination of investigations and prosecutions and the public interest in having active enforcement activity and meaningful penalties needs to be recognised.

2.7.2. This review recommends no change to the criminal law or to contract law but comments about how obligations under it are discharged and the arrangements for enforcement. Although the law already requires enforcement in relation to

2.7.3. Food fraud, in its many guises, represents deliberate breaches of the criminal and civil law for individual or corporate gain. The risks of it occurring are rarely diminished by simply passing more law and there is never going to be a system where we can be absolutely sure that the rules are not being broken.

2.7.4. Recent experience is that where contract cancellations, civil suits, investigations or prosecutions are prioritised according to criteria relating to violence, property damage, likelihood of success, or size of potential penalty, the investigation and prosecution of food crimes are most often not pursued beyond the basic disruption of the relevant activity. This creates a huge incentive for the criminal to pursue food crime instead of other types of crime with comparable financial return, and risks system-wide proliferation if unchecked. We need a more aggressive attitude towards dealing with these offences. We can make life considerably more difficult for those who might wish to break the rules by looking at how well our safeguards work, both in terms of deterrence and those relating to the investigation and prosecution of crime. Deterrence and intervention are strongest when Government and industry work together.

Balance between local, regional and national attention

2.7.5. Local authority trading standards services and environmental health services are the largest enforcement operation in England, supported primarily by funds determined at the discretion of the local authority concerned. They are not 'ring fenced' by Government or even described separately in budgets during the settlement process. They contribute to more than 60 public regulatory objectives including action against bogus or rogue traders, counterfeit and piracy scams, and misselling to minors and the vulnerable. Whilst they all provide the same core services, protecting consumers and helping and encouraging legitimate businesses, they vary locally in the range of functions and manner in which they deliver them. These issues were addressed by the Rogers Review.

The Rogers Review

The 'Rogers Review into Priorities for Local Regulatory Services' which was published in 2007 (after considering the views of local authorities, including port health authorities, citizens, businesses, government departments and Ministers) demonstrated the range of challenges in ensuring that food crime gets adequate attention in this regulatory activity. Sir Peter Rogers identified the following areas to be of "top national priority" for local authority effort:

- Air quality, including regulation of pollution from factories and homes;

- Alcohol, entertainment and late night refreshment licensing and its enforcement;
- Hygiene of businesses, selling, distributing and manufacturing food and the safety and fitness of food in the premises;
- Improving health in the workplace;
- Fair trading (trade descriptions, trade marking, mis-description, door selling); and
- Animal and public health, animal movements and identification.
- (To this list we should now add public health services, for which local authorities were recently tasked by Parliament with taking over the lead from central government.)

The Rogers report also acknowledged the need for local authorities to set local priorities. A typical set of local priorities for an urban authority in the area of trading standards, licensing and environmental health services consists of:

- Tackling noise nuisance;
- Preventing underage sales ;
- Ensuring healthy lifestyle (incorporates food standards, smoke-free and local environment issues);
- Providing educational support for local businesses to assist with their compliance with legislation; and
- Contaminated land.

2.7.6. It is a crowded landscape, and the recent decline in resources available to local authorities has meant a steady reduction in staff with food law enforcement skills. I do not wish to criticise any staff effort at the front line - in fact the opposite. As previously mentioned local authority regulatory services serve as a key source of advice to food businesses, especially small businesses; often they will be the first port of call for new start-ups. Recent austerity cuts have acted as a catalyst for combining services and finding ever greater efficiencies. The local authority response to the horse meat crisis showed a great deal of determination to give reassurance to local consumers.

2.7.7. Each local authority is also required to have an enforcement policy and this may take both local and national factors into consideration. However, there may be some reluctance to close local businesses in straightened times, which could result in local unemployment, and there may be a preference for continuing educative and advisory work for longer than would normally be appropriate. 'De-layering' in local authorities is also removing the skills and experience of taking formal action, resulting in cases being lost or not taken on at all. Improvement in competence in this very specialist area of food crime is needed. Anecdotal evidence suggests that there is also considerable potential for officers to be threatened or intimidated as part of their daily working life. I think it is unreasonable to suggest that local authority effort should be regarded as the whole answer in securing effective disruption of criminal activity. Local authority

officers need coordination, training, protection and the support of specialists. Intelligence gathering, and sharing the experience of other models of enforcement developed internationally (such as Denmark), are discussed further below.

2.7.8. I have considered who should take the lead in future serious criminal investigations into alleged food crimes and have consulted a number of police forces and other enforcement bodies. It will be important to ensure that the police are content to share intelligence and work in cooperation with other regulatory bodies where criminal activity is identified.

2.7.9. The Serious Fraud Office (SFO) is a relatively small, highly specialised Government department that is permitted by law to investigate and, where appropriate, prosecute cases of serious or complex fraud (including cases of domestic or overseas bribery and corruption) which call for the multi-disciplinary approach and the legislative powers available to the SFO. In deciding which cases to take forward, the SFO consider the scale, impact, effect, complexity and the wider public interest. In relation to possible future referrals of food fraud cases, the SFO would not act in the capacity of a 'lead force' but would be prepared to review any information and make a determination on a case by case basis, based on the principles referred to above.

2.7.10. The Metropolitan Police have advised me: "*The Metropolitan Police would contend that there are other agencies that could and should be better placed to tackle food fraud, and it is not tenable for the Police Service to step in to fill the void in terms of capacity and capability.*"

2.7.11. The City of London Police is the national lead force on fraud and houses the National Fraud Intelligence Bureau. In May 2013, they launched a major criminal investigation to discover how food products became adulterated with horse meat. Their press statement on this operation reads: '*This is an extremely complex investigation covering a number of jurisdictions and a variety of businesses. We are working closely with police forces, other law enforcement agencies and regulators to determine whether horse meat being used in a range of meat products was deliberate and coordinated criminal activity*'. One of those police forces was Dyfed Powys Police, who quickly responded to the identification of criminal activity in their jurisdiction by launching a major investigation of their own into horse meat crime. This investigation is still active.

2.7.12. The City of London Police have since advised me: "*As a consequence of our investigation into the discovery of horse meat in the human food chain we have developed some specialist understanding of this type of crime and can see that there may be a legitimate role for police in partnership with other agencies, but, given the range and nature of our core responsibilities, we could not*

realistically be the lead agency. There needs to be an element of full time dedicated expertise outside of policing but with well established links to it.”

2.7.13. Before the City of London Police accepted the major part of this case, the investigation was being coordinated by the FSA and conducted, at least in part, by regulatory agencies with little experience or expertise in the investigation of serious crime and none at all in tackling complex organised crime. That is a gap that needs to be filled.

2.7.14. The view of the Association of Chief Police Officers lead on Organised Crime (ACPO OC) is clear: *“The ACPO OC line on food fraud is that this is not necessarily a police service matter in the first instance and there should be a national lead agency to handle intelligence, investigation and prosecution – and that lead agency should **not** be the police.”*

2.7.15. ACPO OC also suggest how police might support that ‘other’ lead agency: *“Insofar as food fraud might amount to organized crime, there could be a partnership role for the Regional Organized Crime Units (ROCU) and the Regional Asset Recovery Teams (RARTs) in the same way that these units already engage in appropriate cases with other lead agencies in the Government Agency Intelligence Network (GAIN) – such as, for example, organised criminal fly tipping of toxic materials, for which the lead enforcer is the Environment Agency. Food fraud cases led by organised criminal networks would always have to be considered just like any other, by reference to a matrix of harm, threat and risk, and they would be adopted if they met the threshold relative to other threats under consideration at any point in time.”*

2.7.16. Where food fraud is of a scale to amount to serious organised crime, it will fall under HM Government’s Serious Organised Crime strategy, which was published in October 2013¹⁵. It echoes the four strands of the counter-terrorist strategy: Pursue; prevent; protect; and prepare. It aims to reduce the threat from serious organised crime, to disrupt criminal operations, bring criminals to justice and strip them of the proceeds of their crimes. Serious organised crime is estimated to cost the UK £24bn¹⁶ a year; this takes no account of food crime. Law enforcement efforts against serious organised crime will be led by the newly established National Crime Agency (NCA) which will deal with the most serious threats and the most dangerous organised crime networks, and will be supported by nine Regional Organised Crime Units (ROCU) and the Regional Asset Recovery Teams (RARTs).

2.7.17. I have made enquiries of the NCA and received a very helpful and encouraging response from their Director General including: *‘We would of course be very interested in any information regarding the involvement of organised*

¹⁵ <http://www.official-documents.gov.uk/document/cm87/8715/8715.pdf>

¹⁶ <http://www.sia.homeoffice.gov.uk/Documents/conference/nca-partners-serious-crime.pdf>

crime in food fraud. Although not traditionally a high priority for law enforcement this is an area of concern.”

2.7.18. The ACPO OC lead on Intelligence suggests that “National Organised Crime Mapping has demonstrated that the majority of Organised Crime Groups are flexible enterprises that adapt their methodology to achieve the most benefit – that is to say they are multi-commodity and will manage a criminal business that will move fluidly between commodities. Partnership working in relation to organised criminality has clearly demonstrated the benefits of sharing intelligence between agencies, as well as a collaborative approach to disruption. Although specific intelligence in relation to fraud is limited, there would seem to be benefits in sharing intelligence with the designated lead authority for this area. Rather than adopting a bilateral approach to this between the police service and any lead authority for food fraud, the most productive route would seem to be inclusion within an already established model, the Government Agency Intelligence Network (GAIN).”

2.7.19. A diagram of GAIN partners is shown at figure 2 below.

Figure 2 Government Agency Intelligence Network (GAIN) model



Key to acronyms in figure above:

HMRC - Her Majesties Revenue and Customs

DWP - Department of Work and Pensions

NFIB – National Fraud Intelligence Bureau

VOSA – Vehicle and Operator Services Agency

FACT – Film and Copyright Theft

ROCU – Regional Organised Crime Units

RART – Regional asset Recovery Teams

2.7.20. As a result of the link established earlier this year with Dyfed Powys Police, the FSA now has access to GAIN in Wales. However, it lacks access elsewhere in the UK and has considerable development work to do to improve capability and credibility to the level where it can operate as a strong and respected partner, even in Wales. Careful consideration by the FSA is needed about future engagement and responsibility on GAIN.

Recommendation 41 - I have been persuaded by the evidence I have collected that food crime already is or has the potential to become serious organised crime. If so, food crime deserves to be considered by the Government Agency Intelligence Network and the lead food crime agency needs to be involved; I believe this lead agency to be the FSA. Given the wide range of responsible and interested parties, it should not be wholly controlled by FSA but should operate under carefully defined terms of reference to a governance board.

The governance board should comprise key players including:

- FSA;
- Chartered Institute of Environmental Health;
- Trading Standards Institute;
- Local Government Association ;
- Animal Health & Veterinary Laboratories Agency (AHVLA);
- DEFRA;
- Department of Health
- ACPO.

Recommendation 42 - Given my assessment of the seriousness and complexity of food crime, I believe that a new unit, hosted by the FSA, should take over the intelligence lead from the Intellectual Property Office on Operation Opson.

2.7.21. This will allow the operation to extend beyond the original appellation role and provide the necessary systems and culture to seek, hold and develop criminal intelligence. If this role as lead agency for food crime is passed to the FSA, then it too would have to acquire these skills. This would go some way to resolving the current impasse whereby police do not become involved in food crime for lack of criminal intelligence justifying their involvement, while criminal intelligence is not sought in relation to food crime because it is not a police priority. I make a distinction between ‘industry’ intelligence, as discussed earlier in this interim report, and criminal intelligence of the kind that is generated by

covert police sources; I am advised it would be much more likely that such intelligence would be identified and developed if a lead 'customer' for it were established. The joint unit within the FSA could be that customer.

2.7.22. There are a number of agencies, at home and abroad, on which a food crime unit in the FSA could be modelled. We propose to consider current examples operating in Denmark, Holland, and in Northern Ireland. We will also consider the Environment Agency capability to investigate perpetrators of illegal waste disposal, which has increasingly dealt with the involvement of organised crime. This will be considered further and is likely to feature in my final report.

2.7.23. It will be a major undertaking to develop the necessary capabilities in intelligence, investigation and prosecution, and even more of a challenge to build the credibility that will be necessary to ensure that it has the appropriate skills to input to GAIN. I am inclined to recommend that the foundation should be a strong central team with a range of functions to include:

- Establishment of standards for criminal investigation of food crime;
- Establishment of effective links with relevant technical experts and the forensic food science network;
- Guidance to regulators in the criminal offences they might encounter;
- Development of awareness training packages to help regulators to spot serious and organized crime, and to take appropriate initial action;
- Development of partner networks and, in time, the establishment of single points of contact (SPOCs) in all UK police forces;
- Establishment and maintenance of a central investigative capability that can quickly grip a major crisis such as the horse meat scandal and control it while seeking appropriate and necessary police support;
- Oversight of and support for regulators' investigations in those cases where police involvement cannot be secured;
- Development of a criminal intelligence capability incorporating necessary systems and fully compliant with Regulation of Investigatory Powers Act 2000 (RIPA);
- Development of an investigative capability, including financial investigation, cyber crime and communications data capabilities, supplemented as necessary, according to demand by a contingency reserve of associates or through third party private sector suppliers;
- Development of a prosecuting capability such that the Crown Prosecution Service (CPS) can be confident in accepting cases both initiated and overseen by this unit; and
- Development, over time, and according to revealed demand, of regional units aligned with the RARTs.

2.7.24. Whether the FSA should have its own investigatory powers and sanctions to prop up or act in the absence of or alongside local authorities, or work with local authorities under their authority, is something that I will need to consider further and will be covering in my final report.

2.7.25. In the first phase perhaps the most important role of the new unit will be the creation of a link between regulation and criminal investigation. The consultation I have undertaken suggests that there are many reasons why this type of food crime is not identified by regulators, including: lack of awareness of what to look for; lack of guidance as to how to proceed above the level of regulatory offences; lack of confidence in proceeding above that level – (both because there is no expectation that police expertise might be available if the case gets too big and too complex, and, quite simply, because of fear of the criminals); and, crucially, lack of any wider sense of responsibility beyond the specific regulatory remit of each of the players. Each local authority will have its own enforcement policy which it must follow. The local authority may decide that it is a wider problem and refer it to the FSA for investigation as they don't have the skills and resources to deal with it.

2.7.26. There are at least four key players: local authority environmental health and trading standards teams, FSA and AHVLA; each has their own roles and responsibilities arising from legislation. The FSA currently provides support through the food fraud team and its 'fighting fund', but except for a few pockets of excellence, there appears to be insufficient resources or investment in capacity, capability, coordination and communication.

2.7.27. I envisage this new unit being constituted as a non-Home-Office police force so that it can have all the necessary warranted powers including powers of entry and powers of arrest. I envisage it being compliant with the College of Policing Professional Investigators Programme (PIP) standards or, if necessary (and as in the case of other policing agencies such as the NCA), a customised equivalent standard. This will enable the creation of a tiered approach to 'Pursue' activity, as described in the following table.

Category	Title	Current position	Position in a food crime unit
PIP 4	Senior Investigating Officer (SIO)/ Officer in Overall Command (OIOC).	Critical, complex, protracted and/or linked series or cross border homicide – Category A +	e.g. NCA/SFO level complex food crime causing chronic national or international impact, perpetrated by highly organised and dangerous Organised Crime Group (OCG).

PIP 3	Senior Investigating Officer (SIO).	Lead investigator in major investigations e.g. homicide, series rape, kidnap etc. (Category C, B, A.)	e.g. ROCU-level serious food crime causing acute regional or national impact, perpetrated by structured and violent OCG.
PIP 2	Dedicated or Specialist Investigator e.g. CID officer or child protection officer.	Substantive investigations into more serious and complex matters e.g. serious assaults, higher value property crime etc. Specialist complex crimes.	e.g. Police force level significant food crime causing acute local or regional impact, perpetrated by structured and potentially violent OCG.
PIP 1	Patrol Constable/Community Support Officer/Supervisor.	Volume and Priority Investigations – front-line policing.	e.g. Police Basic Command Unit level significant food crime, causing acute local impact, perpetrated by structured OCG.

Setting up a Food Crime Unit would include:

Creation of dedicated staff resource with specialist skills including:

- Knowledge of key food sectors (products of animal origin, e.g. meat and shellfish and non-animal origin) and processing industry (food production and manufacture) imports and exports.
- Regulatory enforcement including investigation, collection of evidence, taking statements (PACE) prosecution, giving evidence, working with other enforcement bodies, intelligence gathering analysis and sharing
- Managing the FSA strategic response in relation to food crime with operational staff in the FSA and in local authorities, and at strategic level with the FSA Board and Ministers
- Maximising strategic effectiveness within available resource, and notify emerging risks and action where additional resources are anticipated or urgently required
- Managing FSA liaison with and build and maintain relationship with other enforcement bodies including Police
- Coordination of the collection, collation, and analysis of intelligence
- Undertaking complex regulatory and food crime related investigations

- Where appropriate refer serious fraud to police and provide technical support and assistance
- Establishing and promulgating a food crime prevention strategy

Recommendation 43- While the optimal outcome would be to create a new ‘food crime’ unit to deal with food fraud incidents, I believe there is action FSA could consider now to enable it to take a lead role in dealing with national incidents. I urge FSA to review whether there might be an existing legislative mechanism to do so, as a matter of urgency.

2.7.28. Initial legal advice to the review has confirmed that under Section 6(3) of the Food Safety Act 1990 the Secretary of State ‘*may direct in relation to cases of a particular description or a particular case that any duty imposed on food authorities by subsection (2) above shall be discharged by the Secretary of State or the Food Standards Agency and not by those authorities*’. (Subsection (2) refers to the duty of local authorities to enforce the Act unless it expressly falls to another authority). The advice suggests that because the wording of section 6(3) refers to “*cases of a particular description*”; the Direction from the Secretary of State could be a standing generic Direction. In other words, it does not have to be issued each time a national incident arises. Instead the terms and limitations of the Direction could be set out in secondary legislation. Those regulations could define the nature of the incident to which the Direction applies such as:

- Geographical area: it could specify incidents that cross local authority boundaries;
- Credible threat – it could specify what it would be;
- National co-ordination – it could describe what that would entail.

2.7.29. The regulations could also set out the FSA’s powers of entry when dealing with national incidents. The use of regulations would enable formal scrutiny by Parliament. Alternatively, it might be possible to achieve the same outcome through consulting and obtaining agreement on a Direction if not issued in the form of regulations. I believe either approach would ensure transparency because Ministers will have agreed the Direction and the arrangements in any regulation and both routes would involve consultation. That consultation would enable local authorities and businesses to raise any concerns about the scope of the FSA’s powers. I acknowledge that this issue will require further detailed consideration by Government and the FSA and I intend to return to it in my final report in the light of my planned further discussions with them.

2.7.30. I am concerned that there do not appear to be robust powers available to local authorities to enable them to seize and detain products on authenticity grounds. As I understand it this is not a problem caused by any shortcomings in EU regulations. Article 54.2 of EU Regulation 882/2004 on official controls provides the necessary underpinning for domestic legislation to prevent products

being placed on the market where non-food safety non-compliance is identified. If these remedies are sanctioned in directly applicable EU regulations, there may be a way to empower local authorities to prevent products being placed on the market where the non-compliance relates to authenticity.

2.8 Crisis Management

When a serious incident occurs the necessary mechanisms are in place so that regulators and industry can deal with it effectively

2.8.1. No matter what mitigating arrangements have been put in place, it is inevitable that there will be future food-related incidents and those incidents will require a quick response by regulators and industry in order to maintain public confidence and to protect the reputation of our industry.

Recommendation 44 - The FSA will always need and expect the support of other government departments if the combined response is to be effective.

2.8.2. To ensure this, any potential crisis (food safety or fraud related) should trigger a system whereby members of the Food Safety and Food Crime Committee are immediately informed. The need for a meeting will be decided at Ministerial level based on the potential severity of the incident.

2.8.3. Silos and boundary fights have no place here; the public interest must come first. The joint high level meetings I have recommended between departments and the FSA will help when crises hit.

2.8.4. There are examples of comprehensive contingency plans in other areas of Government policy which can provide a useful aide memoire in developing arrangements to deal with national food related incidents. One example is Defra's Contingency Plan for Exotic Notifiable Diseases of Animals¹⁷ issued in December 2012 and which is due to be updated very shortly.

Recommendation 45 - Elements in this contingency plan (e.g. on preparedness, organisational structures for control and co-ordination, suspicion and confirmation and communication) apply equally to the handling of a major food incident. I recommend that the FSA follow a similar template as they develop their own plans.

2.8.5. It is very important that as the lead regulator for major incidents, the FSA has robust mechanisms in place. This was an issue which Professor Troop addressed in her recent report; Professor Troop noted that the FSA has an incident protocol for food safety incidents but recommended that the FSA

¹⁷ <https://www.gov.uk/government/publications/contingency-plan-for-exotic-notifiable-diseases-of-animals--2>

strengthen its Major Incident Plan with partners and that it should be supported by a robust programme of testing and practice.

Recommendation 46- Professor Troop’s report helpfully described the key elements of a Major Incident Plan and highlighted the importance of ensuring that appropriately trained staff are in place to increase its resilience. I fully endorse those comments and I would urge the FSA to finalise its Major Incident Plan as quickly as possible.

2.8.6. The issue of risk assessment and the development of counter measures is another area where lessons can be learned from experience of handling disease outbreaks. In 2009 Defra produced a report on Exotic Animal Disease Risk Pathways & Countermeasures¹⁸ which could act as a useful guide. There are other protocols that FSA could and should consider.

Recommendation 47 - Defra, DH and FSA should work closely together to ensure all are clear about their respective roles when another authenticity incident occurs. The creation of the ‘National Food Safety and Food Crime Committee’ will help facilitate the handling of such incidents.

2.8.7. Whilst an incident might relate primarily to Country of Origin Labelling, Protected Geographical Indication and Protected Designation of Origin (where Defra would have the policy lead with enforcement falling to FSA), there may be wider implications of such fraud.

Recommendation 48 – For inspection purposes, all incidents should be regarded in the first instance as potential risks to public health, until there is evidence to the contrary. Once one part of the system fails, we cannot have confidence in the whole. This has implications for the organisation of any response, which I recommend the FSA explores with the Cabinet Office.

2.8.8. Stakeholders, including industry and local authorities, must be clear about the respective responsibilities of FSA, DH and Defra to ensure there is no repeat of the confusion which occurred at the beginning of the horse meat incident.

¹⁹ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69427/pb13567-risk-pathways-countermeasures-100310.pdf

Annex A - Terms of Reference for the review into the integrity and assurance of food supply networks

To advise the Secretary of State for Environment, Food and Rural Affairs and the Secretary of State for Health (“the Secretaries of State”) on issues which impact upon consumer confidence in the authenticity of food products, including any systemic failures in food supply networks and systems of oversight with implications for food safety and public health; and to make recommendations.¹⁹ In particular:

1. To provide advice to the Secretaries of State on:
 - a) any inherent weaknesses in the current regulatory/ enforcement framework that leave food supply networks vulnerable to fraudulent activity (such as the recent horsemeat frauds);
 - b) how best to support consumer confidence in the integrity of their food, taking into account issues of concern to consumers and the relevant responsibilities of various bodies involved in oversight²⁰;
 - c) the audit, testing and other verification within supply networks by regulatory and enforcement authorities, drawing on the FSA review of events and lessons learned; including the role of intelligence-led and routine testing and implications for how institutions work together and exchange intelligence;
 - d) the roles and responsibilities of food businesses including manufacturers, catering suppliers and retailers throughout food supply networks to consumers, including:
 - i. meat and meat product supply networks and practice;
 - ii. other food supply networks and practice, where there may be significant incentive for fraudulent activity;
 - iii. audit, testing and other verification within supply networks by those supplying food, in order to discharge both legal commitments and to meet consumer expectations;
 - iv. the legislative framework in Europe and the UK including how legal responsibilities are interpreted, discharged and enforced;
 - v. the role, operations and control over non-food businesses, such as brokers and traders involved in food supply networks and their relationship with the regulatory framework;
 - vi. any implications for food safety and public health, and
 - vii. any implications for public sector procurement.

2. To make recommendations to the Secretaries of State on:

¹⁹ These recommendations will be relevant to the exercise of their responsibilities: i.e. reserved matters relating to the United Kingdom as a whole (including the EU legal framework governing food safety and authenticity); and devolved matters in England

²⁰ i.e. not restricted to labelling

- a) any changes required to the current regulatory framework and its implementation by the UK government, and to interactions between institutional players – in particular, industry, regulator, wider government, and the EU.
- b) how Government should work with industry and others to implement change;
- c) how the UK (and other Member States in Europe) might increase the resilience of their food systems, specifically against comparable challenges.

3. In formulating advice to the Secretaries of State, the Reviewer will be expected to:

- a) take evidence from the widest range of views and interest, including drawing on related review work in this area by the FSA, the private sector and civil society.
- b) take account of emerging findings from investigations into horsemeat and other frauds, primarily through FSA and other enforcement agencies (respecting the confidential nature of such investigations);
- c) highlight to Ministers any lessons relevant to the EU regulatory framework as these emerge or are required to inform EU negotiations;
- d) look to identify good practice [and the circumstances that support it], including the effectiveness of approaches taken within other jurisdictions;
- e) bear in mind constraints and competing demands on public expenditure currently and beyond the Spending Review and the need for an approach that is proportionate to the risks involved;
- f) recognise that issues relating to horse passports, phenylbutazone, and equine databases are outside the scope of the review.

4. The Review will begin in early June 2013; provide an interim report in December jointly to the Secretaries of State that will form the basis of a final report by spring 2014, as well as offering emerging advice as the Review proceeds on issues relevant to the EU regulatory framework.

Annex B – Biographies of the Review Team

Professor Chris Elliott is Director of the Global Institute for Food Security at Queen's University Belfast. Professor Elliott has published over 250 papers in the field of detection and control of chemical contaminants in agri-food commodities. He has coordinated one of the world's largest research projects in this area, and coordinates another major EU research project (QSAFFE) that deals with contaminant issues within the animal feed supply chain. He is also the director of the ASSET Technology Centre and a co-founder of the International Drug Residue School (SARAF) in Nantes, France. He received a Winston Churchill Fellowship in 1993, and is a Fellow of the Royal Society of Chemistry, the Institute of Biology and Institute of Food Science Technology.

Patricia (Pat) Troop is retired from government. She was previously deputy Chief Medical Officer and was involved in the establishment of the Food Standards Agency before becoming Chief Executive of the Health Protection Agency. She leads on consideration of the role and statutory responsibilities of the FSA and methodologies for intelligence gathering.

Michael Walker is independent of government and is an interpretative laboratory specialist in food and a qualified Public Analyst. He leads with Chris Elliott on considering laboratory capacity and ways to improve it, reference laboratory roles for standardisation of authenticity definitions, testing methodologies and tolerance thresholds. He was previously a member of the FSA Board.

Michael Steel is retired from government and is now a consultant specialising in veterinary and animal welfare regulation and regulatory enforcement with particular expertise in the meat trade. He has previously held roles with the Veterinary Service in Northern Ireland and the Animal Health Agency as director for Wales and most recently Scotland. He leads on the improvement of audit and inspection approaches and inspection/enforcement by regulators, their fit with policing and prosecution by other agencies.

Gary Copson served as an officer in the Metropolitan Police for over 30 years, the last eight years at chief officer level. He currently works as a freelance and associate consultant in policing strategy and leadership at home and abroad. He leads on the politics of policing and prosecution of food crime in England.

Jim Scudamore has led two reviews relating to food safety and authenticity for the Scottish Government. He works with other SMEs and the secretariat to ensure the report is helpful to Scotland while respecting the devolution settlement.

Annex C - List of Contributors to Call for Evidence

AB Connect
Aldi
Anglia Business Solutions Ltd/LINKFRESH
Asda
Association of Chief Trading Standards Officers
Association of Independent meat Suppliers
Australian National University
Brecon Brewing/AWIB/SIBA/Drinks Wales
Brighton and Hove City Council
Brighton and Hove Food Partnership
British Meat Processors Association
British Poultry Council Ltd
British Retail Consortium
British Services Association
Associated British Foods (British Sugar)
Buckinghamshire County Council Trading Standards
Cafédirect
Chartered Institute of Environmental Health
Chilled Foods Association
Chypraze Farm – Mervyns Happy Pigs
The Co-operative Group
East of England Trading Standards Association
Dairy Crest
Dairy UK
DARD
Diageo
Eco Centre Wales
Food and Drink Federation
Food Ethics Council
Forensic Vet
Fresh Produce Consortium
The Government Chemist
GS1 UK
Hanmere Polythene Limited
Harmony Herd
HarvestMark
Institute of Food Science and Technology
Kings College London
KPMG
Lancashire County Council Trading Standards
Local Government Association
Minton Treharne & Davies Ltd
North Portslade Community Allotment Group
National Farmers Union
Red Tractor Assurance Scheme
Safefood
Sainsbury's
Scotland's Rural College

Seafish
Social Science Research Committee
Soil Association
Stockport Council
Support, Training and services Limited
Trading Standards Institute
Trading Standards North West Food Group
Ulster Farmers Union
University of Southampton
Waitrose Ltd
Wakefield Council
Which?
Whitbread
Wirral Community Trust
Worcestershire Regulatory Services

* Where organisations contributed to both the written call for evidence and evidence gathering process they have been listed only once

List of other organisations contributing to evidence gathering process

2 Sisters Food Group
3663
6 Pump Court London
Agriculture and Horticulture Development Board (AHDB)
Allergy Action
Apetito
Association of Public Analysts
Bakkavör Group
BBC Radio 4 Food Programme
Booker Group
Bpex
Brakes
BRC Global Standards
British Hospitality Association
British Standards Institute
Cabinet Office
Cargill
CMS Cameron McKenna
Compass Group UK & Ireland
COSLA (Convention of Scottish Local Authorities)
Cranswick
Deloitte
Department for Business, Innovation and Skills
Department for Environment, Food and Rural Affairs
Department of Health
Devenish Nutrition
Devolved administrations in Northern Ireland, Scotland and Wales
Devon County Council

Dunbia
DWF LLP
Eblex
Elior
Ernst & Young
European Commission – DG Sanco
Eversheds
Federation of Wholesale Distributors
Findus UK
FishVetGroup
Food Standards Agency
Food Forensics
FSA Scotland
Gael Ltd
Greencore Group plc
Greenwoods Solicitors LLP
Groceries Code Adjudicator
H J Heinz & Co
Hampshire County Council
Health and Safety Laboratories
Home Office
Hospital Caterers Association
House of Commons Select Committee on Environment, Food and Rural Affairs
HSBC
Intellectual Property Office
KPMG
Lazenby's
Leatherhead Food Research
LGC
Lidl
Linden Foods
Livestock and Meat Commission for Northern Ireland
Marine Stewardship Council
Marks & Spencer
Meat Trades Journal
Members of the European Parliament
McDonald's
Ministers for Her Majesty's Official Opposition
Morrisons
Moy Park Ltd
Mumsnet
Muslim Food Board
National Association of Care Caterers
National Association of Hospital Caterers
National Laboratory Service
Nestlé UK & Ireland
New Optimists
Northern Ireland Food and Drink Association
Northern Ireland Meat Exporters Association
OSI

Premier Foods
Public Health England
PWC
Scottish Improvement Service
Sodexo
Surrey County Council
Tesco
The Board of Deputies of British Jews
The Grocer
The Guardian
Ulster Farmers' Union
Ulster Pork & Bacon Forum
Universal Halal Agency
Young's Seafood

Annex D - Table of Recommendations

No.	Recommendation	Who the recommendation is addressed to
Consumers First		
1	All parties involved in the governance of the food chain should prioritise consumer confidence in the food they eat over all other aims. To this end, contamination and adulteration of food along with making false claims relating to food products must be made as difficult as possible to commit. Food safety and food crime prevention must be considered our primary objectives.	Industry, regulators and enforcement authorities.
2	Estimates of the extent of criminality in food provision vary widely. In the UK we don't know the scope or extent of the problem. Data collection and well structured surveys should be considered as a matter of urgency to fill in this knowledge gap.	
Zero Tolerance		
3	Consumers and their champions need to ask searching questions about whether certain deals are too good to be true.	Consumers and consumer organisations.
4	Shareholders, board members, owners and those managing food businesses should ask, and be obliged to consider searching questions about whether certain deals are too good to be true. Opportunities for fraud need to be recognised in company risk registers.	Industry board members, CEOs and senior management.
5	All incidences of suspected food crime should be reported directly by staff to their own employers and by industry customers to the senior management of those companies with responsibility for the goods. Mechanisms to allow this to happen need to be developed.	Industry – staff at all levels in processors, manufacturers and retailers.
6	Those charged with governance and management in the food industry need to adapt incentive mechanisms to reward thoughtful procurement practice as well as supporting improvements in technical controls.	Industry – board members and other senior management tasked with governance and management.
7	Industry must ensure that arrangements for the testing and supervision of food supplies are	Industry – those responsible for technical

	reliable at all stages of the supply chain including at point of sale to the public, if it is to protect its reputation and its market relationship with consumers.	management and procurement.
8	There are particular responsibilities for those who take overall responsibility for providing food for institutions such as hospitals, schools and prison service establishments. They should be provided with statutory guidance on what to include in contracts to ensure the validation and assurance of their supply chains.	Local authorities and other public institutions responsible for procuring catering services for the public sector, particularly on behalf of vulnerable individuals.
9	Education and advice is required on the prevention and identification of food crimes. My preference is for advice to be given in a format already familiar to the food industry, such as that expressed in terms of critical control points for hygiene in a food safety management system (the HACCP approach).	Regulators and enforcements authorities.
Intelligence Gathering		
10	I believe that the collection and 'sanitisation' of information from industry –through the maintenance of a confidential source register - needs to be undertaken by an organisation with its own legal status supported directly by industry, without recourse to the resources of government. Its purpose would be to convert information into intelligence that can be disseminated both to government and across organisations in competition with one another.	Industry
11	I suggest that this industry focussed information gathering facility needs to be appointed by its contributors in such a way that it can rely on legal privilege in receiving information and is trusted – again through legal privilege - to protect market sensitive disclosures from being shared with competitors.	Industry
12	Giving information to this industry service should be free, but the costs associated with the running of the service should be paid for by subscription from those who want to share in the intelligence it produces. The service must share intelligence with the FSA as a protected disclosure unless there is clear evidence that suggests that the public health would be best and most immediately served by immediate full and open public disclosure. It should be as open as	Industry and FSA

	possible about its activities; perhaps through the mechanism of an annual, or more regular, public report.	
13	In addition to this new 'safe haven', I am firmly of the view that the FSA should take the lead in discharging the <i>Government</i> role in the collection, analysis and distribution of information and intelligence from a wide range of sources (including governmental e.g. Local Authorities, Police, EU counterparts).	FSA
14	I consider that the lead role for supporting research into authenticity testing, and policy over compositional labelling should revert to the FSA, so as to have closer links to its operational activities. Defra has a justifiable interest in Country of Origin Labelling, Protected Geographical Indication (PGI) and Protected Designation of Origin (PDO) policy and should keep its responsibilities in this area. Research into authenticity and the development of information to support clear labelling about composition however need to have closer links to delivery. I suggest that the FSA is the most appropriate body for this and should take back the lead now, but its' staff must work closely with Defra and industry in doing so.	Defra and FSA
15	The FSA should support a national food economic intelligence hub, with appropriately qualified staff that can study trends in commodities, commodities futures trading and differential pricing across commodities with the potential for adulteration. This intelligence hub should analyse information from multiple sources including international evidence, information from testing and sampling programmes and consider whether these offer new opportunities for criminal profits.	FSA
16	The intelligence produced by both the industry and regulator led information bodies suggested above will need rapid dissemination if it is to be useful. Industry trade associations are an obvious ally. In addition, I recommend the FSA develop close links with local authorities and the advisory services they provide for local retailers. Likewise, the FSA should be proactive with primary authorities in using their close relationships with major companies as a means	Industry and FSA

	of getting information to them.	
17	It also seems sensible for ‘web crawling’ services to be commissioned as a specialised service This service should be supervised by the FSA and shared with industry, so that a single service collates news reports from round the world to spot any new frauds that are being enabled by new technology and innovation.	FSA
18	I believe industry will and should contribute to the cost of the information services outlined above, which would add to or confirm any intelligence they develop in-house or share through an industry safe haven.	Industry
Laboratory Services		
19	The laboratory community testing for food authenticity should standardise their approaches.	Laboratories, both private and public sector.
20	Officials from Defra’s current Food Authenticity Programme, Food and Environment Research Agency (FERA), LGC ²¹ and the FSA should work with the Elliott Review to develop a framework for standardising authenticity testing, ahead of the establishment of an EU-RL in this area.	Defra, FERA, LGC and FSA.
21	Guidance should be developed by the current Food Authenticity Programme and the FSA, setting out the considerations that need to be taken into account when introducing and developing programmes of surveillance. This guidance should feed into existing and future national sampling programmes.	Defra and FSA.
22	Under the combined leadership of the FSA and DH, and facilitated by the LGA, PHE, APA and Defra should work with the Elliott Review to consider appropriate options to secure the merger and rationalisation of current public sector laboratory provision around food standards.	LGA, FSA and DH, working with PHE, APA and Defra.
23	(i) This work [to explore the possibility of a merge of Local Authority laboratories] should be overseen by an external organisation to act as a broker. I suggest a professional body such as the Institute for Science and Technology could fulfil this role. (ii) This project should also be subject to appropriate public scrutiny; I believe the House of	(i) Institute for Science and Technology. (ii) House of Lords Science and Technology Committee

²¹ As the National Institute for Chemical and Bioanalytical Measurement

	Lords Science and Technology Committee would be an appropriate body to undertake this scrutiny.	
Audit		
24	The FSA and BRC should work with industry and accreditation bodies to better coordinate and standardise audit to reduce burdens on producers and suppliers, and improve outcomes.	Industry and accreditation bodies.
25	Buyers, auditors and inspectors need to receive specialist training and advice from their employers about critical control points for detecting food fraud or dishonest labelling in the foodstuffs considered to be medium and high risk. This should be delivered in much the same way as they are trained in food hygiene issues.	Industry and accreditation bodies, both to provide the necessary advice and for their employees to undertake necessary training.
26	Audit processes and methodologies used in the scrutiny of food preparation and processing should continue to be established by industry according to agreed standards, and criteria. These criteria and standards should be rooted in British Standards Institute approved methodologies.	Industry.
27	The food industry moves to reducing the number of announced audits undertaken and replacing them with unannounced thus creating the opportunity to reduce the overall audit burden on those who earn recognition for excellence.	Industry
28	Third party accreditation bodies are ideally positioned to collect and analyse food samples. I would like to see surveillance sampling to the standards set out in section 2.4, incorporated into unannounced audits, to be coordinated by the standard holder. This would act as an additional deterrent to food businesses knowingly trading in fraudulent food.	Accreditation bodies and industry.
29	All sectors of the food industry that purchase directly or indirectly from cold stores should acknowledge the extent of risk posed by cold-stores and only store goods in, or purchase goods out of, those that cold-stores that are audited and inspected regularly, including thorough, unannounced audits outside of regular business hours. I also recommend that where they store food materials in cold stores, other	Industry

	than their own, that they take all necessary measures to ensure that those goods cannot be tampered with during storage.	
30	Accreditation bodies should develop new standards that cover traders and brokers who are currently subjected to little scrutiny by those responsible for either official controls or assurance of private standards. Such standards must be fraud aware and incorporate disciplines such as forensic accountancy in order to guarantee their rigour. The adoption of new standards for brokers and traders will allow food retailers greater visibility of their entire supply chain and not just production facilities.	Accreditation bodies and organisations creating and developing standards.
31	Once the standards for traders and brokers are established, these should become a condition of contract.	Industry
32	Industry must acknowledge the extent of risk of food crime being perpetrated during transportation. For their own loads, retailers, processors and manufacturers must apply and check tamper-evident seals at every stage of the transport process. If using group haulage, industry must make their own products tamper-evident.	Industry
33	Industry should use their own hauliers, or hauliers that are properly audited/ inspected to their own criteria which incorporate anti-fraud measures.	Industry
34	I recommend that industry acknowledge the extent of risk associated with frozen blocks of meat and introduce effective inspection combining thorough and unannounced audits and include regular sampling (surface and core).	Industry
35	Both industry and Government acknowledge the risks of substitution of meat not fit for human consumption entering the human supply chain and introduce anti-fraud auditing measures that will make such substitutions more easily detected.	Industry and enforcement bodies.
Government Support		
36	(i) As all parties become more aware of opportunities and potential for food fraud/crime, it would be sensible for the FSA and local authority	(i) FSA and Local Authorities.

	staff to work to develop a coherent approach across all areas of hygiene and standards, learning from each other so that businesses see no distinction between local authority and FSA regulatory approaches. (ii) This could be effected through improved guidance and training to enforcement officers coordinated between FSA with the professional bodies (including CIEH, TSI, the National Trading Standards Board).	(ii) FSA and professional bodies (e.g. CIEH, TSI, NTSB).
37	The FSA should work with the NTSB, TSI and CIEH to develop a model for coordination of local authority high profile investigations and enforcement. This requires a skills set that is distinctly different from more routine enforcement hierarchy, starting with business support and advice on good practice.	FSA
38	The FSA should remain a non-Ministerial department but changes to its governance arrangements are necessary to make it a more robust organisation.	FSA, Defra, DH.
39	The FSA must engage, simultaneously and regularly, at a very senior level with all the other Government departments it shares interests with. A suitable forum e.g. a 'National Food Safety and Food Crime Committee' must be developed to cover topics including the content of FSA's business plan, its longer term strategic plan and briefing on emerging issues. How those discussions would be conducted should be set out in a Memorandum of Understanding.	FSA, Defra, DH, including other Government Departments where appropriate.
40	The FSA and Government should consider the benefits of Government having the opportunity to comment on the FSA's longer term strategic plan. This approach would help ensure that an independent and robust FSA would have the added benefit of a partnership approach with Government in how it takes forward its role to protect the interests of consumers.	FSA.
Leadership		
41	I have been persuaded by the evidence I have collected that food crime already is or has the potential to become serious organised crime. If so, food crime deserves to be considered by the Government Agency Intelligence Network and the lead food crime agency needs to be involved;	FSA and Intellectual Property Office.

	I believe this lead agency to be the FSA. Given the wide range of responsible and interested parties, it should not be wholly controlled by FSA but should operate under carefully defined terms of reference to a governance board.	
42	Given my assessment of the seriousness and complexity of food crime, I believe that a new unit, hosted by the FSA should take over the intelligence lead from the Intellectual Property Office on Operation Opson.	FSA.
43	While the optimal outcome would be to create a new 'food crime' unit to deal with food fraud incidents, I believe there is action FSA could consider now to enable it to take a lead role in dealing with national incidents. I urge FSA to review whether there might be an existing legislative mechanism to do so, as a matter of urgency	FSA
Crisis Management		
44	The FSA will always need and expect the support of other government departments if the combined response is to be effective.	FSA and appropriate Government departments e.g. Defra and DH.
45	Elements in this contingency plan (e.g. on preparedness, organisational structures for control and co-ordination, suspicion and confirmation and communication) apply equally to the handling of a major food incident. I recommend that the FSA follow a similar template as they develop their own plans.	FSA, with guidance from Defra.
46	Professor Troop's report helpfully described the key elements of a Major Incident Plan and highlighted the importance of ensuring that appropriately trained staff are in place to increase its resilience. I fully endorse those comments and I would urge the FSA to finalise its Major Incident Plan as quickly as possible.	FSA.
47	Defra, DH and FSA should work closely together to ensure all are clear about their respective roles when another authenticity incident occurs. The creation of the 'National Food Safety and Food Crime Committee' will help facilitate the handling of such incidents.	Defra, DH and FSA.
48	For inspection purposes, all incidents should be regarded in the first instance as potential risks to	FSA and Cabinet Office.

	<p>public health, until there is evidence to the contrary. Once one part of the system fails, we cannot have confidence in the whole. This has implications for the organisation of any response, which I recommend the FSA explores with the Cabinet Office.</p>	
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Annex E Definitions

For the purpose of this review I have used the following definitions for food crime, fraud, quality, safety, authenticity, integrity and assurance:

Food fraud is defined by Europol and Interpol as ‘the deliberate placing on the market, for financial gain, foods which are falsely described or otherwise intended to deceive the consumer’.

Food fraud becomes **food crime** when it no longer involves a few random acts by ‘rogues’ within the food industry but becomes an organised activity perpetrated by groups who knowingly set out to deceive and or injure those purchasing a product .

Food quality describes those characteristics which are acceptable to consumers and include appearance, flavour, texture, and compliance with any statutory standard on the composition of the food. Any person who sells to the purchaser’s prejudice any food which is not of the nature, or substance, or quality demanded by the purchaser is guilty of an offence under the Food Safety Act 1990.

Food authenticity is about food offered for sale or sold is of the nature, substance and quality expected by the purchaser. Authenticity can be a particular issue for faith groups or consumers with particular food preferences who do not want to purchase products with certain ingredients.

Food Standards covers the requirement that food must be correctly and accurately labelled, that it contains legal ingredients and that any claims made are truthful. Food standards legislation sets out specific requirements for the labeling, composition and, where appropriate, safety parameters for specific high value foodstuffs which are potentially at risk of being misleadingly substituted with lower quality alternatives.

Authentic reflects a reasonable assumption made on the basis of the labelling provided on the finished product bought by the consumer (or the description in a menu entry). (NB ‘Reasonableness’ should be a Wednesbury test in that it should assume no specialist knowledge of the food industry).

Safe food is defined under EU food law as food which is not injurious to health or unfit for human consumption (EU Regulation 178/2002). A food can become injurious to health:

- by adding an article or substance to it;
- using an article or substance as an ingredient in its preparation;
- abstracting (which means “taking away”) any constituent from it; or
- subjecting it to any other process or treatment

The Regulation prohibits food being placed on the market if it is unsafe. Unsafe food must be withdrawn from sale or recalled from consumers if it has already been sold.

***Food integrity** can be seen as ensuring that food which is offered for sale or sold is not only safe and of the nature, substance and quality expected by the purchaser but also captures other aspects of food production, such as the way it has been sourced, procured and distributed and being honest about those elements to consumers.*

***Food assurance** is normally provided by schemes which provide consumers and businesses with guarantees that food has been produced to particular standards. These schemes are mainly voluntary arrangements although many food businesses make certification in an assurance scheme a specification requirement for their suppliers. An example of an assurance scheme is the Red Tractor and the Lion logo for eggs. These schemes must ensure that communications and claims about them are accurate.*

Annex F - Letter to the Government commenting on EU Regulations



Review into the Integrity and Assurance of Food Supply Networks

Room 207, Nobel House
17 Smith Square
London SW1P 3JR

Jeremy Hunt MP
Secretary of State
Department of Health
Richmond House
79 Whitehall
London SW1A 2NS

3 October 2013

Dear Secretary of State

Review into the Integrity and Assurance of Food Supply Networks – Negotiations on the Proposed EU Regulation on Official Controls

As part of the Terms of Reference for the Review into the Integrity and Assurance of Food Supply Networks I was asked to formulate advice to you and the Secretary of State at the Department for the Environment, Food and Rural Affairs about any issues relevant to the EU regulatory framework as these emerge or are required to inform EU negotiations.

I have considered the European Commission's proposed new Regulation on official controls and other official activities performed to ensure the application of food and feed law, rules on animal health and welfare, plant health, plant reproductive material and plant protection products. Article 14 is of particular interest as it is intended to place obligations on operators, which will include operators of food businesses²². It is intended to establish rules about the way Competent Authorities (CAs) access computerised information management systems and any other information held by

²² Food businesses include any business carrying out the activities related to any stage of production, processing and distribution of food, ranging from slaughterhouses and cutting plants to retailers, cafes and restaurants.

operators, and on the cooperation between operators and CAs in relation to consignments. The Article places a directly applicable EU duty on all operators to give access and to cooperate with inspectors carrying out official control activities. Operators would be required to make available all information to CAs concerning particular consignments.

There is, however, no specific reference to obligations on relevant operators to share information about food fraud or adulteration related to specific consignments. This contrasts with an existing requirement under EU food law for food business operators to share information with the CA about consignments where they have identified a problem where there is a perceived risk to public health.

Food fraud is a complex issue and it is not always clear, particularly when first uncovered, whether or not a food fraud problem might also be a public health problem. This was an issue with the recent horsemeat incident which was considered a potential health risk. On that basis I believe that it is sensible and prudent to assume all food fraud may be a potential risk to public health unless proven otherwise. The question must be asked of any food business operator whose controls are lax enough to allow fraud is it likely to have taken sufficient steps to guard against a potential risk to public health.

I understand that the Food Standards Agency are leading on preparing a consultation document on the proposed Regulation and that Defra has been asked to contribute to it. In light of my advice and because there is a potential risk to public health I believe that it would be sensible for the consultation to seek views on a proposal that there should be a new obligation on operators to share information with the CA about consignments where they have identified a food fraud problem.

I also believe that it would be sensible to take the opportunity to put in place new arrangements at EU level for official laboratories undertaking authenticity testing. Currently there are legislative provisions at EU level for reference laboratories undertaking a wide range of food safety testing. But similar arrangements do not apply for authenticity. There are two kinds of reference laboratories set up by Regulation (EC) No 882/2004 on official controls, EU Reference Laboratories (EU-RL) and National Reference Laboratories (NRL). For an NRL to exist there must first of all be an EU-RL. There is no EU-RL for food authenticity. The setting up of centres of excellence for food and beverage authenticity testing would help ensure that the methods employed are fit for purpose. Benefits from this approach would include the harmonisation of methods employed to detect and quantify adulteration which we think essential for consumer protection and trade, and provision of better information to underpin prosecutions in cases of potential food fraud. I expect that establishing an EU-RL by DG Sanco is likely to be achievable without the need for any significant extra resource, since I think that a number of Member States might be willing to volunteer an existing laboratory or network. The UK may well wish to consider

bidding to have the EU-RL located in a UK laboratory to help underpin the quality and authenticity of food produced in the region and to help re-establish and enhance the UK's reputation for food authenticity and integrity.

I also believe agreement should be reached at EU level around the level of substitution (cross contamination) which might trigger enforcement action. During the horsemeat incident a cut off level for substitution of 1% was set by the FSA and Defra and adopted across the EU. This appears to have been a sensible, pragmatic decision which enabled quick handling of the incident. But as the science to detect substitution and cross contamination rapidly improves, it becomes more difficult to decide what level is the result of food fraud and that which has occurred accidentally. My argument is that at 1% or less substitution no meaningful economic advantage could be gained yet it allows industry to maintain food production where lines use more than one species of meat. When I raised both of these issues with Ladislav Miko, Deputy Director General DG Sanco during a meeting in Brussels last week he was receptive to considering the setting of a tolerance limit during negotiations on the proposed new official controls Regulation. We think that this should be encouraged, although what is acceptable to consumers will clearly vary according to the food stuffs involved. In cases where a 1% level of cross contamination may pose a risk to the consumer - e.g. allergic reactions to cow's milk present as a contaminant in goats/sheep milk or cheese - lower thresholds will have to be set based on individual risk assessments.

Addition fraud - i.e. adding a substance to food to enhance its perceived value - is more complicated. If a fraud is represented by a low level (less than 1%) addition of a substance and economic benefit can still be obtained, then a lower threshold must be implemented. The Sudan Red scandal of 2005, the biggest food recall in UK history, is an example. But in that case, the recall was based on 'any detectable levels' and much of this recall was unnecessary as no economic benefit or risk to the consumer was evident at that level of adulteration. I believe that an EU Working Group should be established to look at addition fraud on a case by case basis to allow a risk based threshold to be established and implemented EU wide.

There is one final matter with regard to the proposed new official controls Regulation. The sharing of information between the Commission and Member States during a food related incident is vital. The Rapid Alert System for Food and Feed (RASFF) is used to deal with food and feed safety incidents. Experience has shown that it is an effective and valued tool. The proposed new official controls Regulation proposes a similar but separate system to deal with food fraud and authenticity incidents. I do not see any benefits from creating a new system and I would suggest that it would be more sensible to combine food fraud and authenticity incidents within the existing RASFF mechanism. Such an approach would again reflect the fact that food fraud is complex and it is not always clear when there are also implications for food safety.

I hope this advice is helpful.

I have written in similar terms to Owen Patterson.

Yours sincerely

A handwritten signature in cursive script that reads "Chris Elliott". The signature is written in a dark ink on a light-colored background.

Professor Chris Elliott

Annex G - An illustration of control points for authenticity testing in the beef supply

Cold-stores

Background:

Cold-stores are climate controlled warehouses that store meat and meat products, at specific temperatures (for meat for human consumption, this is normally -18° C. The type and species of meat stored is at the owners' discretion, so can store meat of all kinds from a number of different sources, or a single species or product for a single supplier.

Risks:

By necessity, cold-stores are expensive operations to run, but even more so if they are less than full to capacity; this creates both the incentive and the opportunity to commit fraud. A well-managed cold-store will usually be full and these costs can be mitigated and very large profits made by increasing the volume and especially the value of stored products.

Some cold-stores may be situated on the same site as an abattoir or meat cutting plant, in which case there will be a vet and FSA inspector present on site during business hours. However, there is no requirement for cold-stores to be inspected by the FSA, and they are generally deemed to be low-risk by other enforcement bodies, so a cold-store on an industrial estate may be subject to very few inspections.

The inspections of cold-stored that do take place also present difficulty when attempting to detect fraud; public sector inspections are announced, infrequent and not usually fraud-aware and private sector audits are generally more concerned with food hygiene and safety than with fraud. In both cases even if they were looking for it, evidence of fraudulent practices would be extremely difficult to detect. A lot of stored material is not easy to access and there is ample opportunity to hide suspect material. At -18c the environment for inspection is also extremely inhospitable.

As a result, for most of the time, any operation undertaking fraudulent activities could undertake thawing, re-freezing, re-packaging, re-labelling and re-strapping out of hours and weekend and carry on in perfect safety.

Mitigating measures (by industry):

- Manufacturers, processors and retailers must acknowledge the extent of risk posed by cold-stores;
- Cold-stores must be audited and inspected properly, including thorough, unannounced audits outside of regular business hours.

- Industry should only use known cold stores;
- When using a shared cold store, make sure your pallets include technology that will make it evident if they have been tampered with.

The meat commodity market and traders & brokers

Background:

Traders and brokers will buy and sell meat, in any quantity and any product. Most traders will not have physical possession of the meat they buy; the meat will be in a cold-store while they are in an office, or simply on the phone. Whilst meat traders and brokers must be registered, so in effect are regulated, in practice enforcement authorities have no legal power of entry and monitoring these operators is difficult.

For the most part, their main concern will be price, so when considering the provenance of meat, the impact that has on price will be their main concern. They would generally seek to argue that they were unaware of any mislabelling or other fraud –even though the price might suggest it. It is likely that there are both solely ethical and solely criminal brokers but most are probably somewhere in between and to a greater or lesser extent indifferent.

Risks:

The work of the Review has exposed meat traders and brokers as crucial links in the supply chain of non-authentic meat. The information gathered from a number of sources suggests the following:

- An unknown, but to all intents and purposes, infinite, amount of legitimately and illegitimately produced meat is available for purchase through traders and brokers. If meat is for sale they will find a buyer; an unscrupulous cold-store operator, with illegal meat need only contact a trader;
- There is a danger that processors may buy illegal meat due to increased pressure to keep their costs down; if the alternative to buying cheaper meat is losing a contract, they may purchase fraudulent meat through careless procurement practices or simply a need for a cheaper product. This could be illegal meat include meat from regulated/unregulated abattoirs and cold-stores, relabelled meat that is of the type not suitable for human consumption, or meat trim with the 'Visible Lean' % (and therefore the value) increased by inclusion of red offal (heart etc.), meat from other species, or meat not suitable for human consumption.
- There have been attempts elsewhere to impose tighter regulation on dealers, brokers, traders and their multitude of agents. However, the complexity and global nature of the network, along with the informality of much of the business that takes place will make this difficult.

Mitigating measures (by industry):

- All parts of the supply chain must acknowledge the extent of risk from purchasing meat from traders/brokers;
- When using brokers/traders, use only those that are known and reliable;
- Insist on shorter supply chains wherever possible;
- Undertake your own inspections and audits, including all of their suppliers;

Transport

Background:

As with cold-stores, the transportation of meat products is another point at which the processor/manufacturer/retailer may not have direct control and oversight of what is taking place. As transportation of meat products require specialist refrigerated lorries, this presents the same opportunity for tampering/adulteration.

Risks:

As with cold-stores, lorries not sealed in a tamper-evident way may transport anything and cargo can easily be substituted. The most likely place for cargo being lorry parks, transport cafes or simply by the side of the road, but it would be possible for more significant substitutions to take place at private premises.

Lorries transporting meat travelling within the EU/Schengen area are only required to be accompanied only by CMR International consignment note and are not subject to any border control or veterinary health checks. They contain consignment and journey details, a minimal description of the load, the identity of the haulier and a tax reference code; these consignment notes are not designed to prevent food crime. For loads which are split or reassembled consignment notes may be written anywhere at any time.

Mitigating measures (by industry):

- Industry must acknowledge the extent of risk with all transport and note the particular risk of group haulage (which should be avoided where possible);
- For their own loads, retailers, processors and manufacturers must apply and check tamper-evident seals at every stage of the transport process;
- If using group haulage, industry must make their own products tamper-evident;
- Industry should use their own or known hauliers, that are properly audited/inspected hauliers, to their own criteria where possible.

Frozen blocks

Background:

Smaller pieces of meat including 'trim' and fat are stored in frozen blocks and can be wrapped individually or wrapped as a pallet-load. Meat trim is classified by its percentage of 'visible lean' – so the less fat you can see the higher quality it is. These are highly susceptible to fraudulent interference with low risk of detection.

Risks:

Lower quality meat trim can be made to look like higher quality trim by the addition of additional lean meat, such as red offal (e.g. heart, lungs etc.), lean meat from cheaper species, or lean meat reclaimed from meat that is not suitable for human consumption. When raw or thawed, the substitution may be detectable, perhaps through visible differences in the product, but when in frozen blocks it is hard to detect because:

- Only the surface of the block is visible;
- The visible constituents are difficult to identify;
- Outside of cold-store the block rapidly becomes covered in frost;
- It may be shrink wrapped with many layers of film;
- Frozen blocks are not homogenous and core samples may miss contaminants entirely;

Similarly, modern processing plants handle frozen blocks mechanically, so there may be limited opportunity to undertake effective inspection and sampling.

Mitigating measures (by industry):

- Industry must acknowledge extent of risk of frozen blocks of meat and the difficulty of effective inspection;
- Industry must audit and inspect their suppliers properly, through a combination of thorough and unannounced audits;
- Industry should endeavour to use limited suppliers and audit all of their suppliers throughout the supply chain;
- Where possible, industry should adapt mechanical handling processes to allow for proper inspection;
- Factory staff should be appropriately trained to be aware to the risks of fraud when handling tempered or thawed meat, particularly trim;
- Outgoing materials should be protected from subsequent adulteration in cold-stores or transit by tamper-evident packaging, particularly when using a shared cold-store.

Labels and packaging

Background:

Official and commercial labels and packaging assure purchasers of the provenance of the material. These all give a purchaser confidence in the provenance and authenticity of the product they are buying.

Risks:

Genuine packaging can be salvaged for re-use. All labels, branded boxes, strapping pallets and wrapping materials can be readily copied or forged. Minor differences are usually present but they can be very difficult to detect and are never looked for.

Mitigating measures (by industry)

- Industry must acknowledge the extent of risk – that labels and badging can be ‘authentically’ copied;
- Industry must prevent their own packaging being re-used through use of proper application labels etc;
- Industry should make labels difficult to copy: serialise numbers, use of cryptic markers etc.

Animal by-products:

Background:

Much of the meat that is eligible only for pet food looks no different to meat which is fit for human consumption. This meat, which is not suitable for human consumption, is classified as lower risk (Category 3) animal by-product (ABP). When purchased at the appropriate by-product price and re-sold at eligible meat price, it would be extremely profitable.

Category 1 animal by-product is deemed to be high risk; this consists largely of those parts of the carcass which represent a potential disease risk to humans. It is eligible only for rendering and incineration.

Risks:

As with many other forms of regulation, those related to Official Controls are focused on microbiology and food safety and are not designed to prevent food fraud. For some criminals, these regulations would not be enough of a deterrent to prevent them from undertaking food fraud.

In addition, cold-stores holding Category 3 material may be adjacent to licensed cold-stores holding meat and meat products for human consumption. Whilst not essential for the fraud it is more convenient and the fraudulent activities much less susceptible to detection.

Mitigation measures:

- Industry must be aware of the risks of substitution;
- Industry must be appropriately suspicious of, and audit appropriately or avoid, those cold stores (or any other link in the supply chain) with geographical or commercial connections to animal by-products businesses), unless for valid commercial reasons.