
DEVELOPING OUR APPROACH TO IDENTIFYING RISKS AND ISSUES ACROSS THE FOOD SYSTEM

Report by Steve Wearne, Policy Director and Professor Guy Poppy, Chief Scientific Adviser

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Summary

1. Our current and developing approaches to surveillance and horizon scanning provide us with capabilities to identify specific new and emerging risks in the near- and medium-term. But they do not, on their own, deliver an informed and integrated view of the global food system and of systemic risks and issues over the next five to ten years. The development of such a capability should be a medium-term objective. It would support development of our future strategy and contribute to our ambition of being an excellent, accountable and modern regulator.

2. The Board is asked to:

- **note and comment on** our current and developing capabilities in the areas of surveillance and horizon scanning¹;
- **discuss and agree** the conclusion that although these capabilities are necessary, they are not sufficient to deliver an informed and integrated view of the global food system and of systemic risks and issues over the next five to ten years;
- **endorse** the central role of the FSA Science Council in providing strategic, expert insight to help us develop our understanding and capabilities in this area; and
- **discuss** the extent to which we should see development of this capability as a prerequisite for the FSA being an excellent, accountable and modern regulator.

Discussion

3. We have established and are developing programmes and approaches to maintain and improve our ability to identify, and then act on, risks and issues.

4. The Board agreed in November 2016 the development of a new approach to food surveillance that collects data systematically about key aspects of the food supply chain and its risks and vulnerabilities, derives knowledge and insights from that data, and informs action that we, food businesses, enforcement authorities, and consumers themselves can take to manage risks. An update on delivery of the surveillance programme is at **Annex 1**.

5. The FSA participated in a recent three-year cross-Government programme of horizon-scanning led by Defra and undertaken by Cranfield University. This

¹ Surveillance and horizon scanning are complementary approaches. Horizon scanning is a longer-term and wider scope activity, whereas surveillance will tend to be nearer-term and more focused on food risks, including emerging risks.

proposed a systematic process for identifying signals of potential and impactful future change. It identified that resilience depends on the flexibility of organisational strategy and preparedness to deal with the unexpected.²

6. We have some current capability for horizon scanning. Each of our Scientific Advisory Committees undertakes a horizon scanning exercise on an annual basis to identify trends within its sphere of operation and beyond. The Chairs of the Committees agreed earlier this year to undertake more open-ended horizon scanning as a collective activity across Committees. We would expect this activity to identify new tasks and priorities for the Scientific Advisory Committees to consider, and signals of new near-horizon risks or trends that required action by the FSA.

7. We have links to a range of cross-Government activity, including:

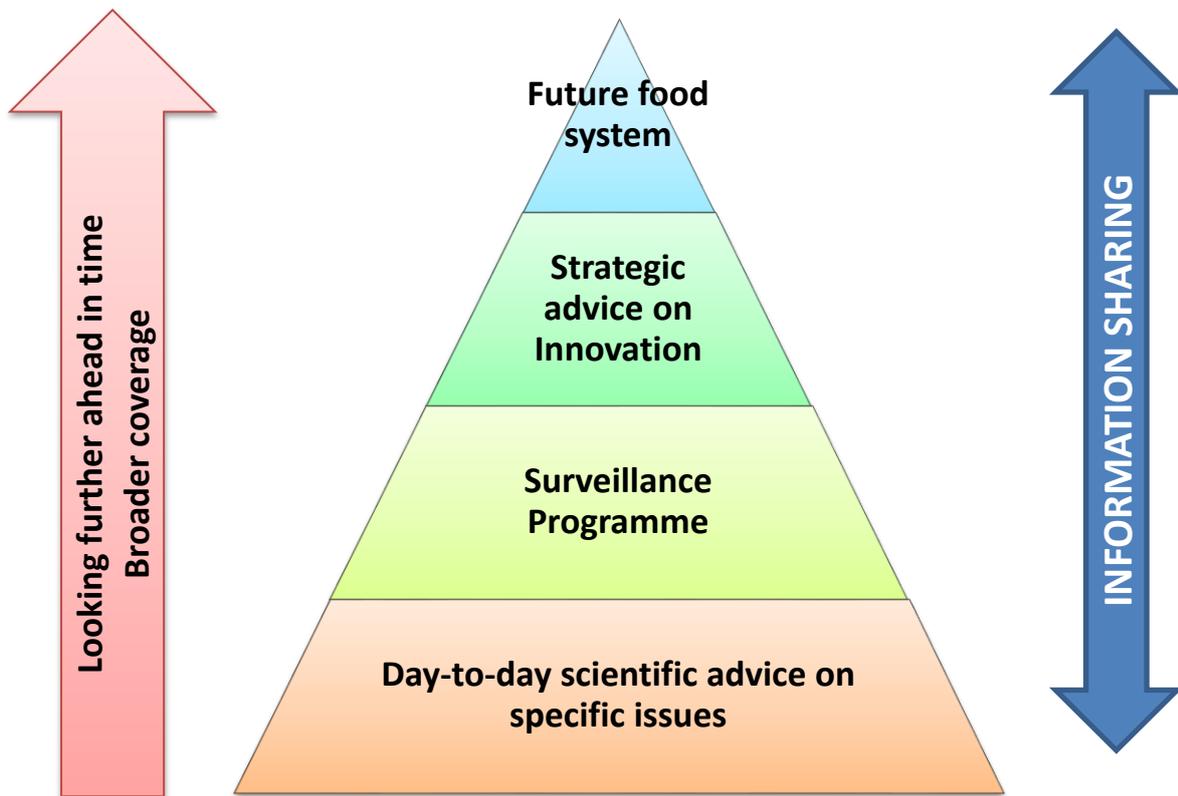
- the Community of Interest on Emerging Technologies which informs our strategic evidence programme;
- work on Climate Change Risk Assessment work which helps us to understand the impacts of and on food as part of this wider comprehensive assessment;
- informal co-ordination with Defra and other partners in the food-environment area, including Environment Agency, Natural England, Welsh Government; and
- wider cross-Government Horizon Scanning including work led by the Government Chief Scientific Adviser and by the central horizon scanning teams in the Government Office for Science and Cabinet Office, and the Heads of Horizon Scanning network.

This latter network has provided some useful insights and contacts on work in other Government departments, for example on analysis of the future of regulation and insights into changes in business compliance.

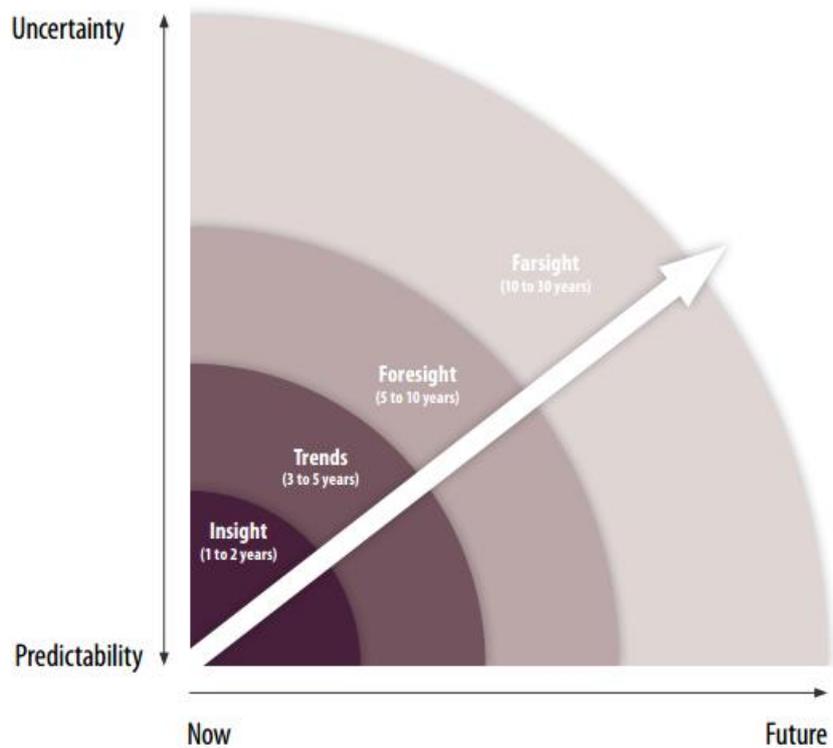
8. Our assessment is that these programmes and approaches are necessary and provide a capability in terms of identifying and acting in relation to specific near and medium-term risks and opportunities. But on their own, they are not sufficient as they fail to start with an informed and integrated view of the global food system and of systemic risks and issues.

9. First, in terms of the breadth of our scope, we tend to concentrate on day-to-day advice on specific issues and surveillance, with occasional forays into strategic advice on innovation.

² Garnett, K. *et al* (2016) Integrating horizon scanning and strategic risk prioritisation using a weight of evidence framework to inform policy decisions. *Science of the Total Environment*: 560-561:82-91.



10. Second, in terms of our time horizon, we tend to work at the level of near-term insights and medium-term trends, rather than longer-term foresight.



Source: <https://www.gov.uk/government/publications/global-strategic-trends-out-to-2045>

11. An informed and integrated view of the global food system would allow us to:
- better understand that global food system and changes within it;
 - from this understanding, identify those issues that represent risks and opportunities to delivery of our strategic objectives;
 - of these risks and opportunities, identify those that fall to the FSA to act or lead on alone or (more likely) in collaboration with others, and those where we need to influence others to act; and
 - demonstrate leadership, in line with our ambition to be an effective, accountable and modern regulator.
12. This represents a medium-term shift in approach and capability, over a three year period, that will inform our strategy from 2020. The development and maintenance of this capability will have resource implications and we will return to the Board once we better understand the work that will be needed. There will be a relationship between the certainty and confidence we can ascribe to insights from horizon scanning and related work, and the resources we commit. In considering future resourcing, the Board will need to take a view on the degree of certainty it would need in order to use these insights to shape and prioritise new work.

The central role of the Science Council

13. The Science Council will have a central role in helping the FSA to understand and to implement the work needed to build our networks and capabilities in these areas, and our strategic and science-based approach in the face of future developments. The Chair of the Science Council, Professor Sandy Thomas, was formerly Head of Foresight at the Government Office for Science and is exceptionally qualified to work with the Council in supporting us. The FSA's Strategic Evidence Fund will support work in these areas where we need to commission original work externally.

14. At its first meeting on 16 June, the Science Council will hold workshop sessions with the Chairman and Chief Scientific Adviser on three strategic questions related to our understanding of and resilience to future developments in the food system:

- To advise the Board on how it can get confident that we have access to the right science capability and capacity.
- What does the Council advise to be best practice in establishing and communicating risk and certainty?
- What should the FSA do to improve its horizon scanning and its understanding of global food systems risks and opportunities?

15. We expect horizon scanning and global food system risks to be a key part of the ongoing work of the Science Council.

16. A better understanding of the drivers and direction of innovation in the food system will be an integral part of the broader capability we should seek to develop. The FSA's Triennial Review of Scientific Advisory Committees recommended the formation of a new Committee on innovation in the food chain to address a gap in

advice in this area. We will identify the best means to address this need within the broader definition of the challenge set out in this paper. This is both broader than just innovation, both in terms of scope, which should consider all aspects of future food systems and their regulation, and in terms of the time horizon, where we are looking for foresight rather than insight.

17. To support this strategic role for the Council, there will be close engagement between the Council and the Board, including an annual report to the Board from Council Chair, Professor Sandy Thomas, the first of which will be in March 2018 and more informal engagement between the Board and Council members at a Board dinner (planned for December 2017).

Recommendation

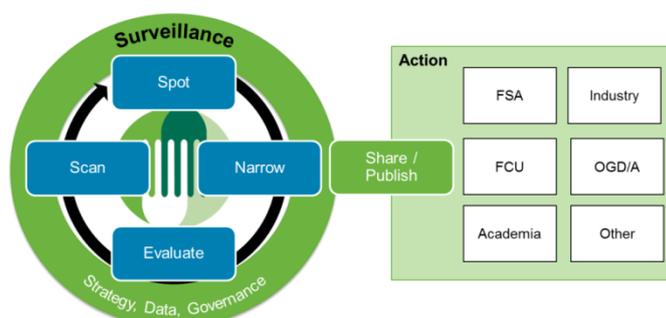
18. The Board is asked to:

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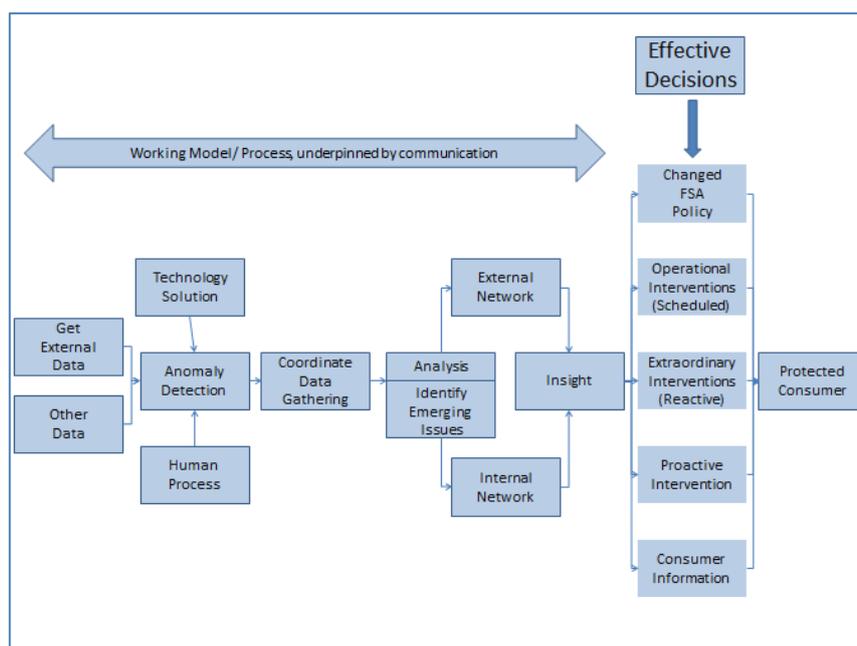
ANNEX 1

UPDATE ON DELIVERY OF THE SURVEILLANCE PROGRAMME

1. The surveillance programme will deliver a new strategic approach to surveillance which meets the World Health Organization definition of the ongoing systematic collection, collation, analysis and/or interpretation of data, followed by dissemination of information so that directed action may be taken. Once fully operational, the programme will provide the FSA and other stakeholders across the food system with novel insights. This will drive prioritised action in the protection of consumers.
2. The ultimate aim is to have a new functioning surveillance system in place by March 2019 which will ensure the FSA has a foundational capability in place to drive Agency priorities. Namely, a surveillance capability that:
 - supports the wider ambition that food is safe to eat and is what it says on the package;
 - helps us to understand risks (safety/authenticity/assurance) and identify both gaps and risks that are changing or not being managed, followed by a plan of action;
 - drives decision making and prioritisation across all parts of the FSA and beyond; and,
 - uses evidence-based analytics to deliver the appropriate level of confidence/certainty to drive decision-making.
3. Our approach will be based on iteration of the key phases of scan, spot, narrow and evaluate. It is expected that intelligence and data for scan activity will be drawn from numerous sources such as electronic media (including social), big data sources, internal networks already in existence (e.g. NFCU, FSS and FSA imports/exports), personal networks, formal networks, international contacts and liaisons.



4. This high-level model has been developed further into the target operating model below:



5. Work is now underway in each of four main work streams:

Proof of concept or design – to test and analyse the strengths and weaknesses of the new surveillance concept. This will be achieved by running six pilots:-

- **Two baseline pilots** – Analyse existing approaches to surveillance using two recent incidents as test cases to identify the opportunities that would have been present for gaining novel insights.
- **Two technology pilots** – Test data coordinating technology supplied by a number of external stakeholders using scenarios closely linked to the two baseline pilots.
- **Two non-technology pilots** - Test current human resources for data coordination.

Developing internal data and intelligence assuring network – to identify, analyse and engage relevant stakeholders within the FSA who can contribute to assuring the quality of data and intelligence being utilised by the organisation.

Developing external data and intelligence sharing network - to identify, analyse and engage relevant stakeholders within the food system (within and outside the UK) who have access to valuable data and intelligence that can be utilised by the FSA.

Exploring data and intelligence coordinating technology – to survey current and near-future availability of technology that would enhance the FSA’s capability to coordinate and integrate our data and intelligence.

6. The Surveillance Programme will deliver the following objectives in 2017/18:

- a) Review lessons from the proof of concept and finalise the new surveillance design concept in order to establish a strategic surveillance approach that will bring more robust, higher quality and increased data & intelligence.
- b) Determine the risks and issues which can be used to direct and influence both future FSA and external partner priorities.

- c)** Expand FSA liaison and impact on external organisations active in the field of strategic surveillance.
 - d)** Develop the initial prototype model for surveillance that can systematically generate actionable knowledge that shapes and informs risk management interventions that are made by us and by our stakeholders.
- 7.** The successful realisation of the 17/18 objectives will involve the elements given below which were generated through an internally facilitated Theory of Change exercise.