

# **Areas of Research Interest**

## **2017-2018**

### Research and Evidence

## **1. DEPARTMENTAL OBJECTIVES**

The Food Standards Agency is responsible for food safety and hygiene and for protecting consumers' other interests in relation to food, in England, Wales and Northern Ireland. Our strategic objectives for 2015-2020 are set out in our Strategic Plan 2015-20.<sup>1</sup>

- Food is safe.
- Food is what it says it is.
- Consumers can make informed choices about what to eat.
- Consumers have access to an affordable healthy diet, now and in the future.

Within this framework our focus for the period 2017 to 2020 will be on three key objectives:

- Delivering our key programme on **Regulating Our Future**, ensuring our future regime for food regulation is modern, agile, and flexible and meets the demands of evolving technology and an ever more complex global food system.
- Anticipating, planning for and delivering the consequences of exiting the EU
- Doing the day job exceptionally well, so that we continue to deliver on our core business: food is safe and what it says it is

## **2. PRIORITIES FOR RESEARCH**

Our priorities for research in order to deliver these objectives are set out in our Science Evidence and Information Strategy Delivery Plan 2015-20.<sup>2</sup> We keep these under review, working with our Science Council and others, to identify new needs and opportunities to deploy science to address our objectives. Our current view on the key issues we need to understand and the research and other evidence we will need in order to deliver our departmental objectives is summarised below.

### **Regulating our Future (ROF)**

This is a leading strategic programme and aims to build an effective, proportionate and sustainable system for ensuring businesses in England, Wales and Northern Ireland meet their responsibilities to produce food that is safe and what it says it is, in ways that support growth and innovation and provide assurance to UK consumers and to underpin global trade.

This will require research, data and insights to help us understand the food system as a system, and how new technologies and new ways to generate, share and use data can help to provide assurance in the food system in innovative and sustainable ways, which are trusted by people and by businesses.

To do this we want to work in partnership with researchers and innovators in academia and in industry to identify and test innovations in technology, to understand behaviours of business, regulators, and people, and what influences them, and to understand and demonstrate the impact of new approaches.

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<sup>1</sup> [http://www.food.gov.uk/sites/default/files/FSA%20strategy%20document%202015-2020 April%202015 interactive%20%282%29.pdf](http://www.food.gov.uk/sites/default/files/FSA%20strategy%20document%202015-2020%20April%202015%20interactive%20%282%29.pdf)

<sup>2</sup> <http://www.food.gov.uk/news-updates/news/2016/14901/using-science-to-deliver-food-we-can-trust>

We will also need to continue to work with consumers, businesses, regulators, researchers and others in government and outside to understand what helps people and organisations make informed decisions, and to develop the information and other tools which are needed to support this.

We will also need to develop and consider the wider evidence about which approaches are effective in influencing behaviour - whether by consumers themselves, by industry, by regulators and those working in enforcement, or in the food system as a whole - and which of these work best to support practices that lead to benefits for consumers.

We need to understand which combinations of approaches work best to deliver our desired outcomes - from formal regulation to approaches based on behaviour change and supporting informed decisions.

A key area of research need underpinning this work will be to develop our understanding and use of behavioural science, modelling and other insights in relation to the behaviour of businesses, organisations and systems, complementing our work to date which has focused on consumers.

Critical to success of the approach is understanding the data ecosystem and leveraging this to realise and quantify impact of our activities. To this end we have a commitment to Open Data that will allow others to use and re-use data under Open Government License.

### **Our core business: food that is safe and what it says it is**

We need to understand which risks and detriments to target and which approaches are most effective, underpinned by robust, evidence-based risk assessment of where and how risks and detriments arise, and how they affect different groups. This includes work on established priorities including Campylobacter, food allergy and intolerance, antimicrobial resistance in the food chain, food-borne viruses, food chemicals and food crime.

We have identified a need to develop our understanding of adult food allergy and will need to develop this work in collaboration with researchers, patient organisations/charities, consumer groups and healthcare professionals. This is likely to include initial research to understand the prevalence, mechanisms and characteristics of allergy in adults so that we may then frame more specific future research questions.

Alongside this technical understanding of risk we will need evidence on what different groups of consumers, food businesses and others feel about what risks are acceptable and about the types of tools and measures that might be used to manage these risks, and how these views change both for groups and for individuals.

We will need to understand and to test which measures are most effective in practice to reduce or to control risks, and how their availability and effectiveness change for different groups and contexts.

We will need to combine these strands of evidence with understanding of the behaviours of consumers, businesses, regulators and others in the food system, and how the food system itself behaves, and what influences these behaviours. This includes understanding the wider drivers and influences in the system, so that we can exploit opportunities where interests and incentives align to benefit consumers and others, and understand and seek to address tensions and trade-offs between interests and incentives, and how these can be reflected in our discussions and decisions in an evidence-informed way. This will be particularly important in developing future regulations that exploit innovative technologies and uses of data, and understanding of how people and organisations behave, to deliver sustainable, effective regulation that supports growth and innovation, and provides assurance to UK consumers and to support global trade.

## **Other priorities**

### **Effective use of data**

We are developing a data strategy that includes our narrative around being a 'data driven' organisation. This includes making data available for use when an individual or team identify a need for it. Easy and timely access to data and tools necessary to use the data effectively - including understanding what it will and won't support is central to the approach. Our programme of work on **data** will support ROF and will also look more widely at how we can use new data sources, technologies, tools and partnerships to use our own and others' data better, to understand the food system, to deliver our objectives in better and more collaborative ways, and to evaluate our impact.

### **Surveillance**

In particular we will need to develop new ways to access, analyse and use data from a wide range of sources and types to inform a more effective, targeted and innovative approach to food surveillance.

We are currently in an exciting phase in the development of a new, strategic approach to surveillance, which aims to develop a flexible, evolving surveillance system to account for possible risks and challenges to the food and feed system. This will involve strengthening our internal and external surveillance networks to continue effective collaboration. We will also need to develop our ability to use data effectively to forecast trends, identify signals, and generate information and insight from large data sets, so we and others can identify and manage emerging risks for the future.

### **Risks, opportunities, innovation and technologies**

We need to understand what futures for the food system might look like, informed by effective horizon scanning and strategic analysis, and by building our capability to be more anticipatory and predictive in identifying new and emerging risks and opportunities, and understanding which changes or signals in the food system could be useful in helping us do this.

We need to work with others to understand and to exploit the potential of new technologies and innovations to deliver new and better ways to benefit consumers and the food system. This includes new ways to improve assurance on safety and integrity, and understanding of how innovations might change the behaviours of people and businesses in the food system, and thus how regulation can be future-proofed so it is both resilient and adaptable to future developments. We will need to build our understanding of the food system as a system, and how to use this to gain insights, including through modelling and use of data, which can help us target our work effectively and evaluate its impact.

### **Strategic science partnerships**

Work on these and other priorities will build further on our growing number of partnerships. These include work with the Big Data Institute at University College London (part of the Alan Turing Institute), the Quadram Institute, the IT As a Utility network, CECAN (the Centre for the Evaluation of Complexity Across the Nexus) and CARR (the Centre for Analysis of Risk and Regulation, based at LSE).

### **Contact for further information:**

Dr Patrick Miller

Hear of CSA Team, Food Standards Agency

020 7276 8277

[patrick.miller@foodstandards.gsi.gov.uk](mailto:patrick.miller@foodstandards.gsi.gov.uk)

## **Annex 1 Further information on how we plan, commission and publish research**

### **Our Science Evidence and Innovation Strategy 2015-20**

Our priorities for research are set out in our Science Evidence and Information Strategy Delivery Plan 2015-20.<sup>3</sup> Our Programme of Work 2016 provides more detail on some of the specific areas in which we plan to commission research over the period to 2020.<sup>2</sup> The Strategy is based around four priority themes for our research and other science, evidence and information work:

1. Understanding **risks** and how to evaluate and compare them, so that we can target our work on effective consumer protection
2. Intelligent and shared use of **data**, information and analytics, to understand existing risks, identify new and changing risks, and to develop targeted and effective surveillance and regulation
3. Understanding **consumers, food businesses enforcement partners and others in the food system** and how we can work with them to support behaviour change and build and spread good practice
4. Learning from **what works** and what doesn't, to maximise positive impacts and value for money, through our own work and our work with others

### **Our research systems**

Where we identify needs for new research we meet these through open competition (with the exception of some analytics work which is done by our in-house experts). Research requirements are published on our website and procured through our online portal, where you can also register for automatic alerts of new requirements:

<https://food.bravosolution.co.uk/web/login.html>

Details on new research tenders are also available on UK government and EU web pages:

<https://www.gov.uk/contracts-finder>

<http://ted.europa.eu/TED/main/HomePage.do>

Where appropriate we invite input from scientists, stakeholders and potential partners on our emerging ideas for new work to help us identify:

- better ways to frame our research questions and needs
- existing information which could address these needs
- opportunities to work with others on issues of shared interest.

### **Publication of research outcomes and data**

We aim to publish full details of our research, its findings and the supporting underpinning data, so people can see what has been done and use the data to add value or innovate in their own right. Our Open Data policy applies across all of our activity – including for all science and evidence gathering and operational delivery. A prototype (alpha) open data catalogue of the department's datasets is available at [data.food.gov.uk](http://data.food.gov.uk).

We also publish a series of CSA reports which present the science behind key issues in an accessible and engaging way for all. Recent reports cover data science<sup>4</sup> and food allergy<sup>5</sup>.

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<sup>3</sup> <http://www.food.gov.uk/news-updates/news/2016/14901/using-science-to-deliver-food-we-can-trust>

<sup>4</sup> <https://www.food.gov.uk/sites/default/files/chiefscientificadviserssciencereport.pdf>

<sup>5</sup> <https://www.food.gov.uk/sites/default/files/fifth-csa-report-allergy.pdf>