News

Paper 12.9 FSA Strategic Assessment 2024.

Summary

This paper provides a summary of the 2023 FSA strategic assessment to inform discussions at the ACSS plenary meeting.

Background:

The FSA published the 2023 strategic assessment in June of last year. The assessment forms the basis of internal 6 monthly scans, and identifies external factors that may impact on the agency and require a response from the FSA in near future (c.6-12 months). It provides a means for the FSA to consider what actions it might wish to take to prepare for the forthcoming period, and to support organisational business and risk planning.

The strategic assessment is led by the Strategic Insights Team (part of the FSAs Analytics Unit), who are currently developing the 2025 strategic assessment. As part of this process, we are consulting with ACSS members to gather views on changes since production of the 2023 strategic assessment.

The ask:

Members are requested to read the 2023 Strategic Assessment Insight Brief (Annex A) ahead of the plenary. Members views will be sought on how drivers may have changed over the last year, and what this could mean for the FSA over the next 2 years.

Annex A: Insight Brief: Food System Strategic Assessment 2023

Background

1. The Strategic Assessment identifies challenges and opportunities in the UK food system for the short- (2023-2025), medium- (up to 2028) and long-term (up to 2033). The report was produced by an external consultancy through an expert elicitation exercise and a literature review, and has an information cut-off date of March 2023.

2. This insight brief is a precis of the findings. The original report can be accessed here, with links to the specific driver sections below.

Summary

3. Six major drivers of potentially substantial change in the UK food system were identified, along with associated issues. Drivers interact and the issues identified are often highly complex, so there is a large degree of inherent uncertainty in predicting change. The issues identified are presented linked to their main causal driver, but in most cases there will be a complex causal relationship across multiple drivers. The drivers are:

1. UK economic conditions
2. Technology innovation
3. Commercial drivers
4. Consumer attitudes
5. Climate change/environmental factors
6. UK exit from the EU & regulatory change.

Driver - UK economic conditions

Supply chain volatility and disruptions

4. Over the past three years supply chain volatility and disruptions have increased with substantial impact in the short- to mid-term future. Risks for food safety and standards may arise due to abrupt shortages of inputs, and through sourcing from new suppliers. Small and medium enterprises (SMEs) might not have the resources to easily ensure standards are maintained when switching suppliers. More direct communication with SMEs regarding supply chain risks might be required to support them in addressing potential food safety, authenticity, and allergen related issues when switching suppliers.

Household food insecurity (HHFI)

5. HHFI has increased over the past two years directing consumer choices towards cheaper and potentially less healthy foods. In addition, the use of food banks has increased as part of a longer-term trend in the UK towards more unequal access to food. These issues may have medium- and long-term impacts on health at the population level. Targeted information for food bank providers and users with regards to potential risks might be helpful for the short- and medium-term future. The FSA has already engaged with food bank providers.

Labour shortages in the food system

6. Labour shortages have over the past five years increasingly impacted the UK food system, from a lack of seasonal labour and HGV drivers to abattoir workers and high skilled labour, such as food standards enforcement staff. Risks to the food system can arise at different points when shortages impact maintenance of standards and quality. However, at present no overall trend toward increasing food safety incidents due to labour shortages was reported.

Driver - technology innovation

Improved agricultural production technologies

7. Improved agricultural production technologies are seen as essential to reduce the negative environmental impact of the global food system, and will have direct impacts on areas within the regulatory remit of the FSA. If farming practices such as technology enabled (data-driven) precision agriculture, integrated pest management, and regenerative agriculture become implemented at scale in the mid- to long-term future, new food safety issues might arise from novel pests/contaminants/allergens, for example from using new waste streams for feed or new active substances as pesticides.

Digital technologies, AI and robotics

8. It is anticipated that these will be essential for any future transformation of the food system. One aspect of digital innovation with relevance for the FSA is online sales channels. Increasing numbers of food aggregator platforms pose known and potential food safety and standards risks that are hard to police and rapidly evolving. As it is a rapidly evolving area, safety and authenticity issues may arise rapidly in a dispersed manner requiring novel enforcement tools and improved guidelines for online operators. The FSA has already started actively engaging with this sector providing guidance for digital food distribution platform operators.

[1] [2]

Alternative sources of protein

9. Despite recent large investments in plant-based meat substitutes, fermentation-based protein products, and cultured meat, the long-term potential of these technologies still needs to be proven in wider consumer markets as they are mostly at a premium price level. Current economic pressures and changing attitudes may slow down their growth in the short- to medium-term future. These products are considered by many as highly processed foods and their long-term health impacts are currently unknown.

10. As some foods produced with alternative proteins and other ingredients fall under the Novel Foods regulation a balanced approach between controlling risks and supporting innovation will be required.[3] [4] Some production processes will require close industry collaboration to understand claims made in health and sustainability.

Novel food processing technologies

11. Recent innovations in non-thermal food processing technologies promise alternatives to heat-based antimicrobial food treatment to maintain freshness and natural ingredients, enabling healthier products, and using fewer chemical preservatives.

12. As these technologies are still emerging, food safety parameters and potential labelling requirements need to be established with industry collaboration. Current levels of use and the science base behind these technologies need to be explored to understand the need for regulatory assessment.

Gene Editing / Precision Breeding technologies

13. Current scientific understanding indicates that there are no novel food safety or health risks to be expected from food and feed products produced with these technologies. To what extent precision bred crops and animals can contribute to a transformation of the food system in the future is currently not known. It is expected that it will take at least a decade until any benefits from UK produced precision bred organisms will be achieved at scale.[5]

14. As public understanding of the technology is generally low there is an opportunity to shape public debate around the benefits of the technology, and for the provision of information that enables informed consumer choice based on scientific evidence. The difficulty of authenticating food that is precision bred could be a new source of food crime through deliberate mislabelling, which would be extremely difficult to detect by standard sampling methods.

Insects in food and feed

15. Insects are considered a good source of protein with a much lower environmental footprint than livestock farming. Their use in the UK is currently still mostly prohibited awaiting review of the Novel Foods regulation. The market is currently still small and may take another decade to reach scale to make significant contributions to replacing proteins from livestock farming or feed crop agriculture.

16. Potential novel risks such as microbial contaminants, bioaccumulation of toxic compounds, or allergens will be assessed as part of the authorisation of novel foods under which most of these products will fall; as such the health impacts for humans and animals after longer-term consumption are currently not known.

Improved packaging / alternatives to single use plastics

17. Reducing and recycling packaging, and replacing fossil fuel-based single use plastic for food packaging is well supported internationally. However, technical issues and high production costs are preventing commercial viability at scale. The true sustainability metrics of these alternatives are at present not well understood, and a significant shift away from fossil fuel-based materials might be still more than a decade away. The FSA is actively researching this technology area and has commissioned a study into how this industry may evolve.

Driver - Commercial drivers

Decreasing investment in innovation and technology

18. Due to current economic pressures, investments into novel technologies and innovation, in particular those with sustainability goals, are postponed for the short- to mid-term future.[6] This reduces the opportunities that some innovations might deliver, particularly in the area of sustainability.

Driver - Consumer attitudes

Increased volatility of consumer decisions concerning healthy and sustainable foods

19. Studies show that consumers generally support sustainability, but sustainability of food is not well understood and often based on misconceptions. [7] Under current financial pressures consumers prioritise price of food over health, and a shift from red meat to more poultry might be motivated by cost.[8] Trends of meat reduction and increasing sales of meat alternatives appear to be slowing down, not only due to financial pressures on consumers, but also a shifting consumer understanding of meat alternative products. These issues may contribute to earlier predictions about consumers appearing less certain; also influencing consumer choices will likely be more difficult in the short- to medium-term future.

Driver - Climate change / environmental factors

20. Most trends and issues arising due to climate change are ongoing and long-term. Trends highlighted were increasing levels of animal and plant pests due to globally rising temperatures or an increasing frequency of extreme weather events.[9] [10] Increasing livestock infestations due to warmer winters in combination with rising antimicrobial resistance, as well as potentially increasing zoonotic diseases or aflatoxin and other mycotoxin contamination need to be monitored globally. Relevant data needs to be shared internationally to prevent larger scale outbreaks and to ensure the safety of UK produced and imported goods. There is likely to be an increased need for closer international monitoring and in the future more enforcement action along supply chains across countries.

Driver - UK exit from the EU (Brexit) and regulatory change

21. The direct impacts of Brexit on the UK food system are becoming increasingly felt and create considerable uncertainty that affects decision making for many food chain stakeholders. The following areas are expected to affect food safety and standards as well as trade:

- Current limited capacity for enforcement when full border controls with the EU come into force.
- That new trade deals should not allow the import of food produced to lower standards.

- Regulatory divergence between the UK and the EU causing different speeds of innovation.
- More limited data sharing with the EU on issues important for food safety, food fraud, ingredients and chemicals.

22. These factors could require rapid capacity building across the food safety enforcement sector because of new border controls at a time of resource limitations and relevant skills shortages. Regulatory divergence will also need to be carefully considered so that there is still a balance that supports trade with the EU and elsewhere as much as possible. Targeted messaging to maintain consumer trust might also be required if there is a public perception that imports from countries with lower food standards will reach the UK unchecked.

[1] FSA. (2022). Emily Miles' stakeholder update - Safer takeaways and the power of online platforms. FSA. https://food.blog.gov.uk/2022/10/18/emily-miles-stakeholder-update-safer-takeaways-and-the-power-of-online-platforms/

[2] Short, S., Strauss, B., & Lotfian, P. (2022). Food in the digital platform economy – making sense of a dynamic ecosystem. https://doi.org/10.46756/sci.fsa.jbr429

[3] European Commission. (2015). Regulation (EU) 2015/2283 of the European Parliament and of the Council. The National Archives. https://www.legislation.gov.uk/eur/2015/2283/contents

[4] UK Government. (2018). The Novel Foods (England) Regulations 2018. The National Archives. https://www.legislation.gov.uk/uksi/2018/154/made

[5] From expert elicitation panel.

[6] From expert elicitation panel.

[7] Which? (2021). Supporting consumers in the transition to net zero. https://www.which.co.uk/policy/sustainability/8178/supporting-consumers-in-the-transition-to-net-zero

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