

Paper 3.8

Emerging Technologies: Implications for Food Safety Regulation and Global Food Systems (Proposition Paper)

Summary

This paper is for information and discussion. It sets out the background and some of the questions that we are currently asking ourselves. The Committee is invited to discuss options to best support and inform FSA's future work.

Background

The Fourth Industrial Revolution (FIR) is the current and developing environment in which disruptive technologies are changing the way we live and work, characterised by the convergence of digital, physical, and biological technologies. These technologies are influencing societies, economies and individuals; resulting in a global transformation, which is significant in terms of its size, speed, and scope.

Fourth Industrial Revolution technologies have the potential to help revolutionize food systems, dramatically changing the shape of demand, improving value-chain linkages and creating more effective production systems. At the same time, however, they are likely to introduce new challenges and threats – raising concerns pertaining to public health and food safety, vulnerable groups (elderly, low income groups, immuno-compromised etc.), labour markets, and geopolitical security as well as social value systems and ethical frameworks.

It is crucial for Government to understand how this changing technology impacts on consumers. Including; understanding consumers perception of risk from new and emerging technologies and how emerging technologies impact on consumers connection (or lack of connection) to the global food system.

Current activity

How to regulate food businesses in an environment that is increasingly being defined by rapidly emerging technologies and evolving global food systems is a question currently being considered by the Agency. The FSA is now developing a programme of research on emerging technologies to better understand the implications for consumers, food safety regulation and global food systems.

Future direction

As the FSA looks to modernise the way food businesses are regulated, we are keen to:

1. Understand the complexities and dynamics of emerging FIR technologies such as the Internet of Things (IoT), robotics, virtual reality (VR) and artificial intelligence (AI); and how, through a horizon scanning lens (economic, environmental, political, social, legal) this impacts on UK and global food systems and markets.
2. Carry out a forward-looking assessment of the potential economic impact FIR technologies would have on the UK/ global food sector; and the implications this would have in a food safety regulatory context i.e. identifying probable emerging risks (public health/ food access etc.) as well as opportunities (smarter more targeted and proportionate ways of regulation etc.).
3. Understand the impact FIR technologies are likely to have on consumers in terms of choice, access, preferences, quality of life, and standard of living. Also, how FIR technologies affect consumer's connection to the food system, for example does convenience mean decreased connection?

In parallel, we are keen to understand through a literature review and multi-method primary social research how emerging technologies and disruptive business models are affecting consumer perceptions of risk in food, including trusted sources of information, reported purchasing behaviours, and acceptability of emerging food technologies.

Discussion

The FSA is keen to engage the ACSS in its ongoing programme of work; and would like to set up a Committee working group to provide advice on initial ideas and as the workstream progresses, to advise on the strategic direction of work.

The Committee is invited to discuss:

- Whether it thinks a Committee working group would be a good model to provide the advice required by FSA;
- Scope to provide initial advice on options, literature and frameworks;
- Scope to provide strategic direction and identify priorities;
- Whether there are other areas ACSS feels it could usefully contribute at this stage as the FSA looks to advancing the next phase of work.

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