

A Vision for a UK-wide Food Strategy

Open Letter

12 July 2021

The Institute of Food Science and Technology is the UK's leading professional body that aims to advance the application of food science and technology for the benefit, safety and health of the public. Our wide-ranging professional membership comprises stakeholders working in all corners of the food system, who are directly involved in the evolution of the UK food sector.

As an independent, charitable body, we bring professional expertise from across academia, industry and the public sector, centred around the professional, sustainable advancement of the UK food system. Our values place scientific evidence at the core of any engagement with the public, policy makers and members, ensuring this evidence remains central to future UK food system developments.

We lay out below, IFST's vision for an inclusive UK-wide Food Strategy, highlighting our key imperatives and reiterating our commitment to support Government, industry, academia, citizens and IFST members in achieving this vision.

Introduction

The UK food system is steering through some of the greatest peacetime disruptions ever seen, as EU Exit and Covid-19 have impacted how everybody lives, works and eats. At the same time, the second part of the National Food Strategy review for England is due to be published, setting out recommendations for Government action within the English food system. An inclusive UK-wide food strategy is needed, rather than a strategy for England alone.

This open letter proposes the evidence-based changes needed to bolster a professional, resilient and innovative UK food sector in three key calls for action. These key aspects require urgent attention to enable future support for the UK population locally at a personal level, at a professional level and at a national level.

IFST's Call to Action on UK Food Strategy

A long term, UK-wide food strategy

A UK-wide food strategy aligned across governments and agencies, with strong, focused Ministerial leadership and which considers the entire food system, is needed to ensure a resilient, capable and innovative UK food system. This strategy needs to be evidence-based, impartial of party political positions and measurable against clear targets and goals.

Investment in the food sector

Building a competent, innovative and resilient industry with strong foundations in science and technology. This support will ensure food safety, sustainability, good nutrition, profitability and a highly skilled workforce.

Consumer focus to inform and educate our population on healthy, sustainable diets

Developing the relevant skills to enable citizens to understand the impacts of food choices they are making. These will empower citizens to eat healthily and sustainably from both an accessibility (convenience and cost) and a skills perspective.

The Vision

Food plays a very important, multifaceted role in people's lives, critical to maintaining good physical and mental health and shaping our environments. Food supports many people's livelihoods. The combined food and drink supply chain is the largest employment sector in the UK with over 4 million employees^{1, 2}. Food is also key to building social cohesion and community across our diverse society.

IFST fully supports the creation of a National Food Strategy and proposes the scope should cover the entire UK³, and address the interdependencies of the food system⁴ from production to consumption and beyond.

A UK-wide food strategy needs to be ambitious and holistic with a clear pathway to implementation, whilst addressing the interdependencies of the food system. It needs to ensure the following points are addressed:

1. **Healthy, balanced diets:** All people have access to nutritious, safe, affordable, delicious and sustainable food.
2. **Food information, education and culinary skills development:** Citizens must be supported to ensure they have a sufficient understanding of food, diet and food sources, which allows them to follow a culturally relevant, healthy and balanced diet.
3. **Food system resilience:** Resilience should be built-in to the UK food system, ensuring capacity to survive shocks, adapt to change and make a pivotal contribution to a thriving UK economy, including highly professionalised operations which provide equitable and rewarding employment for those working in them.
4. **Sustainability and the environment:** The UK food system is a key positive contributor to the achievement of global and national environmental targets.
5. **Investment in industry-leading food research:** Strategic investment in food research and supporting infrastructure to build the UK's global position as a leader in food research and development, driving innovation and providing technological solutions fit for the future.
6. **Integrated Governance:** Coordinated and joined-up thinking regarding UK food system governance. Applying systems approaches to provide clear, capable and strategic governance, integrated across all Government departments and agencies, and stakeholders which will benefit all actors in the UK food sector.

The following sections set out each point in greater detail.

¹ FDF Our Industry at a Glance <https://www.fdf.org.uk/globalassets/resources/public/general/industry-at-a-glance-april2020.pdf>

² Defra ON Food Statistics in your pocket: Summary Updated 30 November 2020 <https://www.gov.uk/government/statistics/food-statistics-pocketbook/food-statistics-in-your-pocket-summary#agri-food-sector-employees-gb-q4-2019>

³ UN sustainable development goals <https://sdgs.un.org/goals>

⁴ UK food system https://www.city.ac.uk/_data/assets/pdf_file/0008/471599/7643_Brief-2_What-is-the-food-system-A-food-policy-perspective_WEB_SP.pdf

1. Healthy balanced diets

The United Nations Sustainable Development Goals (UN SDGs) goals highlight the importance of safe, accessible and affordable food that supports healthy balanced and sustainable diets for all⁵.

A wide variety of foods have a role to play in a healthy balanced diet as defined by the UK EatWell guide⁶. Evidence shows that unhealthy diets continue to be prevalent in the UK⁷, contributing to multiple forms of malnutrition, obesity, and diet related chronic disease. UK obesity rates⁸ have been increasing in both adults and, more worryingly, children, with 67% of adult men and 60% of adult women now overweight or obese and 20% of Year 6 children considered obese⁹.

IFST supports the food industry's continued improvements to the nutritional make-up of products, through all means available. Citizens should be able to access and enjoy a sustainable and balanced diet which meets their diverse cultural needs as part of a healthy lifestyle. Citizen education and skills development have a critical role to play in achieving this and needs deliberate investment.

A UK-wide food strategy needs to have every person's wellbeing at its centre, to help consumers follow a healthy lifestyle and balanced diet and incentivise further research and development in the improvement of the nutritional quality of all types of food.

2. Food information, education and culinary skills development

Food education, including culinary skills, needs to be strengthened and fully integrated across school curricula to help inform and empower the UK population. A UK-wide food strategy needs to invest in improving citizen understanding of food information provided, food sources, nutrition and the importance of eating a balanced, healthy and sustainable diet.

Clear and understandable information about our food, including labelling and other communications is essential to educate the public and aid wise citizen food choices. These guides need to be transparent and applied in consistent ways across all food, wherever it might be procured and consumed. The signposting needs to be adopted consistently by all manufacturers, retailers and food service providers.

IFST recommends increased education regarding food, including a balanced diet, culinary skills and safe food processing, preparation and storage within the personal, social, health, economic and citizenship curricula in both primary and secondary schools.

Furthermore, IFST recommends establishing food science and technology as a core element across the science, technology, engineering and mathematics curricula and investment in increased access to funding for tertiary training and lifelong learning with a food systems emphasis, to support sector skills for the future.

⁵ UN SDG 2 'Zero hunger' <https://sdgs.un.org/goals/goal2> and UN SDG 3 'Good health and wellbeing' <https://sdgs.un.org/goals/goal3>

⁶ PHE EatWell guide

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/742750/Eatwell_Guide_booklet_2018v4.pdf

⁷ Food Foundation 'Broken Plate' report 2021 <https://foodfoundation.org.uk/publication/the-broken-plate-2021/>

⁸ Our world in Data: Obesity data <https://ourworldindata.org/obesity>; Environmental impact of food data <https://ourworldindata.org/environmental-impacts-of-food>; Diet composition <https://ourworldindata.org/diet-compositions>

⁹ NHS obesity data May 2020 <https://digital.nhs.uk/data-and-information/publications/statistical/statistics-on-obesity-physical-activity-and-diet/england-2020#data-sets>

Clear and meaningful signposting

Clear and understandable information about our food, including labelling and other communications is essential to educate the public and aid wise citizen food choices. These guides need to be transparent and applied in consistent ways by all manufacturers, retailers and food service providers.

IFST acknowledges there may be a need to regulate how food is marketed and promoted. This should include consideration of the incentivisation of consumption of some foods. Any regulations in this area must be based on scientifically proven evidence and regularly reviewed to ensure desired outcomes are being met.

3. Food system resilience

The UK food system sits within, and is dependent upon, a wider global food system for all year round provision of a wide choice of high quality food. A resilient and profitable food system is needed to provide both sustainable livelihoods for all those that work in it as well as access to sustainable nutrition for those it serves.

Even though the UK's food system has demonstrated resilience during the Covid-19 pandemic, technical skills gaps and a lack of investment and support for innovation implementation will affect future UK food system resilience.

A UK-wide food strategy needs to address all these aspects to provide the national infrastructure needed to implement the progressive technologies needed to support future resilience.

Skills gap

On-going training and continuous development of the UK food sector workforce are a vital prerequisite to building resilient, sustainable and safe food systems. IFST strongly recommends every food business operator has a nominated food safety specialist who has undergone appropriate accredited food hygiene, food safety and allergen training and undertakes on-going continual professional development. This mirrors the recommendations made in the NHS Hospital Food Review for hospital food provision¹⁰. Investing in competent professionals will assure continued efficient, high quality and safe food provision. Investing in new skills to implement innovative technologies is crucial for more environmentally sustainable operations as well as sector growth.

Despite being the largest manufacturing sector employer in the UK, the food sector faces a significant skills shortfall. The industry was already experiencing a demographic shift in workforce and technical skills, with EU exit exacerbating this further. Skilled migrants from the EU have returned home or are not considering the UK for their career in food and drink manufacturing; whether those are technical roles in food science and engineering, or corporate roles. UK home-grown talent are not purposefully choosing careers in the food sector. A third of the national workforce is due to retire by 2024, leaving the food manufacturing industry facing a shortage of about 140,000 recruits to plug this skills gap.^{11,12,13}

Issues with attracting and retaining capable talent in the food sector, coupled with lack of investment, is impacting technical skills availability. A professional, skilled, diverse and inclusive

¹⁰ <https://www.gov.uk/government/publications/independent-review-of-nhs-hospital-food>

¹¹ Food & Drink Sector Council Preparing for a changing workforce: A food and drink supply chain approach to skills <https://www.fdf.org.uk/globalassets/resources/publications/fdsc-workforce-skills-report.pdf>

¹² KTN What Technical Skills does the UK Food & Drink Sector Need? 2021 <https://ktn-uk.org/wp-content/uploads/2021/06/FD-Sector-Skills-Survey.pdf>

¹³ FDF Breaking the Chain <https://www.fdf.org.uk/globalassets/resources/publications/breaking-the-chain.pdf>

food industry requires positive promotion as a valuable sector in the UK to reflect the varied and worthwhile career opportunities. There are many initiatives in place aimed at addressing this but, due to the fragmented nature of the sector, need to be delivered in a more cohesive, impactful way.

High visibility government support and investment in UK food would endorse a positive image of food as a progressive dynamic sector for careers for people from all identities and backgrounds.

Food Industry 4.0

The UK food sector is currently lagging behind in Industry 4.0 implementation compared to other manufacturing sectors. Support for technology implementation with UK food businesses is urgently needed, given that >90% of UK food operators are SMEs^{14, 15}.

Cross-sector digitisation is necessary to allow the application of new information technologies and productivity initiatives critical to assuring a resilient future from the farmer to the consumer. This process is required for improved data gathering and dissemination, to advance sustainable intensification approaches for food production, facilitate reuse of surplus and potential waste and promote more efficient use of resources.

Food Processing Capability

Continuing advancement in food processing and packaging technologies is vital to help build food system resilience and achieve the UN SDGs. Investment to support progress in this area will extend food product shelf life and recovery of useful by-products, thereby reducing food waste and providing diverse food choice all year round. Food processing technologies and the products created support our nation's modern lifestyle and provide the convenience needed by working families and individuals. Processed foods also form the vital foundations of home cooking.

Destruction of pathogens and removal of anti-nutrients, such as naturally occurring toxins, by processing already permits safe use of a range of diverse foodstuffs, while energy efficiency improvements can support the drive towards net zero carbon emissions. Advancements in new food processing technologies are also needed to improve nutrient retention, bioavailability and bioaccessibility delivering improved nutrient density in our diets.

4. Sustainability and the environment

The global food system contributes over a quarter of all greenhouse gas emissions^{16, 17} and the UK government has committed to net zero emissions by 2050¹⁸. This is not possible without significant investment to address the contribution from the food system.

Sustainable access to sufficient safe, nutritious, aspirational and affordable food is built upon a range of resources which require specific attention to understand a 'true cost' of food on the environment according to the cost of resource management. This will include energy use and natural capital management, including soil, water and the raw materials used to produce both food and packaging, through to waste mitigation. Changes in agricultural, food production and

¹⁴ Defra ON Food Statistics in your pocket: Summary Updated 30 November 2020

<https://www.gov.uk/government/statistics/food-statistics-pocketbook/food-statistics-in-your-pocket-summary#agri-food-sector-employees-gb-q4-2019>

¹⁵ FDF Facts and stats <https://www.fdf.org.uk/fdf/business-insights-and-economics/facts-and-stats/>

¹⁶ SAPEA Science Advice for Policy by European Academies. (2020). A sustainable food system for the European Union. Berlin: SAPEA. <https://doi.org/10.26356/sustainablefood>

¹⁷ Hannah Ritchie and Max Roser (2020) - "Environmental impacts of food production". Published online at OurWorldInData.org. Retrieved from: '<https://ourworldindata.org/environmental-impacts-of-food>' [Online Resource]

¹⁸ Defra Net zero emissions by 2050

<https://deframedia.blog.gov.uk/2019/06/12/net-zero-emissions-by-2050/>

processing practices are vital to promoting and protecting biodiversity and delivering the resilience needed to meet our planetary and population needs. Logistics in food manufacture and retailing will also require a complete transformation, in particular in the chill chain needed to support both shelf life and food safety. It is critical to ensure that decisions to implement transformational changes are evidence-based, consider potential trade-offs and avoid unintended negative consequences around food safety, environmental sustainability, positive nutrition and affordability.

IFST recommends that a UK-wide national food strategy needs to take a global view and apply a 'think global, act local' approach to produce food in the most sustainable way, based on true life cycle analysis.

5. Investment in industry-leading food research

The UK has always been at the forefront of fundamental and applied food research and innovation, including regulatory innovation. Technological advancement is critical in providing progressive solutions, not just for a resilient system, but also for an environmentally sustainable dynamic food system. For example, advances in the use of robotics, both in the field but also much more fully in factories can provide sophisticated solutions driving improved control and efficiency. Advances in process and packaging technology will also be essential.

Governments currently support agricultural R&D pre-farm gate; however, IFST recommends that the same emphasis is given to the whole food system and not just the agricultural sector. Significant investment is needed to improve access to innovation, particularly for primary processors post-farm gate and for the SMEs in the food sector.

Positive support for technology implementation is needed across the UK, in particular to progress the cross-sector digitisation necessary to allow application of new technologies and collection of metrics to fuel innovation. These productivity initiatives are required to progress sustainable intensification approaches for food production, reuse of surplus and potential waste and enable more efficient use of resources. From the perspective of food manufacturing, it should be noted that >90% of food businesses are SMEs; therefore, technology transfer might look very different for these companies compared to highly sophisticated multi-national organisations, many of which have research and development laboratories in the UK.

Plants, animals and other biological systems tailored to our future needs are available to us, but current policy and public opinion often preclude their use. To be optimally sustainable, food production must use all the technology at our disposal where risk assessment and risk management effectively balances any risk (as opposed to hazard) with benefit. History also teaches us, that when citizens understand these risks in a dispassionate and balanced way, they can make well-informed choices for themselves. Transparency from all stakeholders is essential in this process to establish trust.

The pace of changes in food products and diet risks outpacing the regulatory and academic community. A UK-wide food strategy needs to address new developments in regulatory approaches and processes to support dynamic and responsive innovation, while continuing to improve citizen protection.

The current lack of alignment in government departmental policy relating to food and decades of inadequate investment in both research and education for the food sector have created barriers to innovation and implementation of new scientific developments and technologies.

6. Integrated Governance

The food system is a complex network, made up of both independent and interdependent parts. Sixteen government departments in England alone¹⁹, currently have some responsibility for food and/or interface with the food industry, with multiple gaps and duplication causing unnecessary inefficiencies. The additional complexity with four nations cross-UK further compounds this.

We need aligned, integrated government and a systems-based approach to provide capable and strategic governance relating to food across all UK nations. Nominated Ministerial responsibility for the whole UK food system would provide the leadership needed to enact this.

Creation of a supportive forum, where the whole food system can work with system-based solutions, would benefit all actors in the UK food sector. This would avoid individual actors or issues forcing compromise on the other parts of the system and prevent unintended and unforeseen negative consequences.

Support for sustainable food and drink provision for the UK should be on everyone's agenda. A forum to facilitate this new way of working would provide balance and consistency across policy, positions and communications.

A strategic focus on food in UK Governments at the highest level is urgently needed to ensure food sector resilience and growth. A similar high-level focus on food and nutrition at the new Advanced Research and Invention Agency (ARIA) is needed to unlock the potential of scientific developments for the UK food sector.

It is our considered view that without a paradigm shift in behaviour across food system actors and stakeholders we will not have the level of collaboration and cooperation required to unleash the potential of the UK food sector.

Measuring the holistic impact of changes

The sector needs a framework to judge multiple impact factors across sustainability, safety, authenticity, legal compliance, consumer preference, positive nutrition, affordability, and ethical welfare, to ensure protection of the public and the supply chain. It is critical that all relevant food system stakeholders clearly understand and can measure the holistic impact of changes to food chain systems, to food products and their packaging. These measures can help to avoid unintended consequences and to achieve the goal of providing access to truly sustainable nutrition.

Evidence-based and transparent metrics to calculate impacts will retain citizen trust and protection. For example, scientifically robust and relevant advice is needed to provide a balanced understanding of the impacts of packaging, both positive and negative, across the entire food system. Packaging is essential to protect food product integrity and support longer shelf life, thus preventing food waste. Packaging material choice and overall packaging design therefore needs to be balanced to deliver sustainable food safety and integrity.

Summary

The Institute remains committed to supporting governments, industry, academic research, educators, citizens and all other stakeholders in achieving our vision.

¹⁹ Parsons (2020). Who makes food policy in England? A map of government actors and activities. Rethinking Food Governance Report 1 London: Food Research Collaboration <https://foodresearch.org.uk/publications/who-makes-food-policy-in-england-and-food-policy-coordination-under-covid19/>

IFST's vision for our future food system can be achieved by pursuing the development of three key areas:

- A long term, UK-wide food strategy, evidence based and covering the entire food system
- Investment in the food sector and a highly-skilled, professional workforce
- Informing and educating our population on healthy, sustainable diets and provide the necessary skills to understand the impacts of their food choices.

The UK food system is one of the most sophisticated in the world, with access to a wider range of safe and nutritious food than at any time in history. Constant developments in the food system have advanced many key areas including affordability, innovative use of ingredients, increased access to diverse cultural cuisines, improvements in processing capability, reductions in contamination and increased food safety, state-of-the-art food distribution networks and complex supply chains providing year round access to a wide range of foods. Deliberate efforts by Government and other UK food system stakeholders are needed within a UK-wide food strategy to ensure significant improvements in the provision of safe, healthy balanced diets, delicious foods for all citizens and lifestyles, and sustainability for everyone in the food system, putting food at the centre of our UK community cultures.

This document considers key points of urgency and primary relevance to IFST members and the UK food system, in the face of a changing food sector. Recommendations put forward in this document are formed where the Institute feels it can most credibly contribute, recognising there are further areas of consideration which fall out of the scope of this document. It should not be considered as an exhaustive position.

IFST looks forward to engaging further on the recommendations presented with any and all stakeholders.

Your sincerely,



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