

## Food System Framework Executive Summary

There is a clear and urgent need for science and applied technologies to help deliver sustainable food systems, which provide 'food security and nutrition for all in such a way that the economic, social and environmental bases to generate food security and nutrition for future generations are not compromised' (FAO, High Level Panel of Experts on food security and nutrition). IFST as the 'Voice of the Food Profession' is well placed to bring focus to important aspects of developing sustainable food systems.

To direct our efforts in what is a wide topic area, we have commissioned this report by 3Keel to focus activity on practical elements where we can have an impact that is most relevant to our members, and also benefit wider society.

The report outlines 6 key themes that provide a framework for IFST to develop guidance, new knowledge, policy, and other initiatives to support the vision of sustainable food systems, while keeping a focus on food, technology and evidence. Recommendations for broad activity areas are made under each of these themes:

1. **Resource risks and pressures** – the food system is dependent on the natural environment and at the same time is causing significant environmental impacts. IFST can contribute to UK and global efforts to increase food system resilience through:
  - Developing **guidance** for food industry on **mitigating the impact of emerging global environmental risks**
  - Supporting **research** to identify how **food science and technology could help the industry adapt to the impacts of climate change**
  - Identifying how a broader set of **environmental and social risks can be integrated into food business and supply chain risk management**.
  - Being a vocal supporter of efforts to address **climate change mitigation and adaptation** in the food sector.
  
2. **Healthy sustainable diets** – there is a need to deliver good human and environmental health outcomes from the food system at the same time. Partnering with appropriate technical colleagues, IFST can:
  - Help develop and disseminate best practice guidance on how to incorporate sustainability into the assessment of new processes and products, i.e. '**Designing in sustainability**' to NPD or R&D processes
  - Contribute to the development of solutions to the **global challenge of food and nutritional waste** through the application of science and technology
  
3. **Circular economy and sustainable manufacturing** – the current economic model of 'take-produce-consume-discard' is unsustainable. IFST can:
  - Address food safety and regulatory perspective challenges to support the increased **use of wastes and by-products as inputs** to other processes and sectors
  - Support and promote industry efforts to increase resource efficiency through **reducing energy, waste and water in the food industry**
  - Facilitate **the creation of new practical energy standards**, for SMEs
  - Support optimisation of the usability of foods through the **improvement of product date/storage/usage labelling information**
  
4. **Novel production systems and ingredients** – there are opportunities for developing new farming and manufacturing technologies to deliver sustainable nutrition. IFST can:
  - Contribute to the technical, legal, and consumer-acceptability **challenges of future protein technologies**

- Promote or support research into **automation and increased use of data-enabled technology and ‘artificial intelligence’** in the food system
- 5. Decent work and equitable trade** – the livelihoods and working conditions of the 1+ billion people who work in the food system need to be improved. IFST can:
- Explore the advantages and disadvantages of a move towards more **automation** in the agri-food supply chain
- 6. Transparency, traceability and trust** – new software and data can help drive improvements in food system sustainability and strengthen consumer trust. IFST can:
- Increase industry **knowledge of emerging traceability and transparency technologies in supply chains**
  - **Support development and uptake of innovative approaches to assuring the sustainability of supply chain actors**

IFST and its member working group will now use this framework and the recommendations to develop more specific activities, which will need to be addressed in conjunction with the many organisations and individuals who are affected by, or are already working in, these areas. The report identifies some of those key stakeholders as potential partners, and IFST is open to discussion and collaboration with these and other interested parties. For more information or to initiate that discussion please contact John Bassett, Policy and Scientific Development Director, IFST at [j.bassett@ifst.org](mailto:j.bassett@ifst.org).

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