

## **FDf Response to the Department for Science, Innovation & Technology (DSIT) Review into Technology Adoption**

1. This submission is made by the Food and Drink Federation, which represents the UK food and drink manufacturing industry. As the UK's largest manufacturing sector, employing close to 500,000 workers across every region and nation of the UK and contributing £36bn in GVA a year to the UK economy, food and drink is well positioned to make a significant contribution to growth and to prosperity in communities right across the UK, while also delivering on the government's other core missions on Net Zero and health.
2. Food and drink manufacturers want to create a world-leading food system to strengthen the UK's food security, tackle climate change and health inequalities and boost investment and productivity. A recent report found a £14bn of untapped productivity growth potential for the sector through the adoption of automation, digital tech and artificial intelligence (AI)<sup>1</sup>. Many manufacturers are already leading the way in advanced manufacturing using cutting-edge science, technology and AI in production processes and product innovation, but there are opportunities to accelerate adoption across our sector's 12,500 businesses. This investment will help drive economic and productivity growth and create higher-skilled, better paid jobs. However, to accelerate this growth we need a supportive regulatory environment and more openness to trade, incentivising increased private investment and upskilling.
3. The majority of food and drink manufacturers are SME businesses (97%) and can often be found behind the curve in the uptake of automation and digital technologies. Creating an environment that allows these businesses not just to survive but thrive and enables greater investment in technology adoption will create stronger economic growth for UK's largest manufacturing sector and the wider UK economy.

### **The current situation**

4. Food and drink manufacturing has huge investment potential. A recent report<sup>2</sup> published by strategic delivery consultancy Newton concluded that there is an untapped growth opportunity of up to £14bn within the UK's food and drink manufacturing industry through the adoption of automation, digital and AI. The report also found that food and drink has delivered a markedly higher return on investment over the last 20 years, generating £9 of value for every £1 invested, compared to transport and engineering sectors<sup>3</sup> with £5 for every £1.
5. Compared to other G7 countries and Europe, UK food and drink manufacturing performs well in terms of the gross value added (GVA) per employee, with only USA, Canada, Netherlands and Belgium performing significantly better. If the UK is to transition to become world-leading, this could unlock up to £14bn of value for the economy, representing up to a 44% improvement (4% annual improvement above inflation over 10 years).
6. To help deliver the UK's Net Zero target by 2050, food and drink manufacturers are driving forward their sustainability efforts, supported by technology adoption. Global manufacturers and small enterprises alike are moving towards renewable energy, upgrading to energy-efficient machinery and implementing advanced recycling and waste-reduction systems.
7. Companies are also investing in technology to stay competitive. Robotic arms, precision packaging machines and automated sorting systems have become staples in modern production

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<sup>1</sup> [Future Factory: Supercharging digital innovation in food and drink manufacturing](#). Newton, November 2025

<sup>2</sup> [Future Factory: Supercharging digital innovation in food and drink manufacturing](#). Newton, November 2025

<sup>3</sup> Transport and engineering consists of multiple manufacturing sectors from automotive, other transport, computer, machinery and electrical equipment.

lines. The result for businesses is efficiency allowing for faster throughput, reduced error rates and lower operational costs. The sector's acquisition of robots is on an upward trend, and food and drink is the second largest sector in terms of robots purchased (after automotive). These improvements also support employees who are freed up to focus on higher-value work.

8. Artificial intelligence (AI) is also being utilised by businesses to support greater efficiencies including using machine learning algorithms to forecast demand, optimise inventory and identify quality issues early. Predictive maintenance powered by AI keeps production lines running smoothly by diagnosing potential faults before they disrupt operations. These digital tools enable manufacturers to keep goods competitive in both domestic and international markets.
9. With the use of data analytics, businesses can make informed decisions at every level, from improving product quality to reducing waste. Digital twins – virtual replicas of production environments – are helping companies trial and improve production processes before implementing them in real life. The result is greater productivity and more efficient use of resources across the board. However, many of these new technologies are only truly accessible to the largest UK food and drink manufacturers who have the resources to invest in and explore the ever-expanding capabilities available for data analytics and AI.

#### Barriers to technology adoption

10. The UK has long been a favoured destination for investment in food and drink, with global companies locating their R&D facilities in the UK to SMEs creating market disrupting products. There is a real opportunity to build on industry's capabilities in digitalisation and automation to reach our world-class capabilities in product development. However, there are several factors disincentivising business to invest in technology:
  - Changing regulation and increasing taxes
  - Short-term contracts forcing immediate ROI
  - Lack of targeted government support to de-risk investment
  - Lack of skilled workforce
11. FDF's most recent State of Industry survey for Q3 2024<sup>4</sup> found the following issues were acting as barriers to investment: uncertainty about upcoming regulation (49%), uncertainty about demand (40%) and taxation (29%) ranked as the top 3 concerns. This survey was pre-Autumn budget but there were already concerns in the sector around potential measures that could be introduced.
12. UK food and drink manufacturers operate in a fast-paced and highly competitive environment, where businesses typically expect a rapid return on investment (ROI) within 18 months to two years. This can make the business case for longer-term investment more difficult unlike other advanced manufacturing industries that have longer ROI timeframes. This is even more challenging for the 97% of SMEs in the sector and against a background of challenging headwinds with higher production costs and commodity price volatility.
13. Demand uncertainty has been caused by a slowdown in overall consumer demand in recent years, exacerbated by rising living costs. Furthermore, smaller producers usually operate under short-term contracts with retailers – which hinders their long-term stability to make investment decisions. This ultimately creates a cycle that hurts competitiveness and limits innovation in a rapidly changing market.
14. Government support for food and drink manufacturing is significantly less than other UK manufacturing sectors. In 2022 Government contributed 0.3 per cent (£3m) to the food and drink

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<sup>4</sup> [FDF State of Industry Report Q3 2024](#), December 2024

manufacturing's R&D spending, whilst the automotive and aerospace sectors received respectively 1.0 per cent (£38m) and 15.8 per cent (£322m)<sup>5</sup>. Global best practice in this area offers examples of opportunities for innovation in the sector; other countries such as Ireland, South Korea and Israel have created more supportive environments.

15. A third of senior food and drink manufacturing leaders, who took part in Newton's Future Factory research, found the biggest issue holding back the adoption of digital and AI solutions is the lack of skilled labour to identify opportunities, that's without even purchasing or deploying the technology. As our sector becomes more automated and digitised, we need more data and digital skills to keep our workforce competitive. Despite our sector employing almost 500,000 people, our sector has faced severe labour and skill shortages at all levels – higher than the wider manufacturing and national average – in recent years, making it more difficult to adopt new technologies and best practice. Growth and productivity improvements have continued to be held back with an estimated loss of £1 billion in output in 2023 due to these skills shortages. With the continuing labour shortages and increasing costs for workers, it is increasingly imperative that the food and drink manufacturing sector automates.

## Existing Measures

16. What industry needs is a predictable, stable regulatory framework, a competitive tax regime and targeted government support (along the lines of programmes such as Made Smarter), to attract long-term investment. Global businesses often face intense competition for investment internally, in which the UK operations contest with their European and foreign counterparts for funds for new production lines, products and packaging. A well-designed and transparent regulatory structure should serve as the foundation for investor confidence, so that businesses choose the UK to invest and grow their production with predictable operating conditions and assurance of government support.
17. There are some positive examples of existing, targeted government support to accelerate technology adoption in the private sector. In 2017, the Made Smarter review identified a potential £55.8 billion value to UK food manufacturing through the adoption of existing digital technology over the next decade. The initial report resulted in the creation of the **Made Smarter programme** which targeted support to UK SMEs manufacturers with the uptake of innovation and technology. Piloted in the North West and then targeted regionally in the North East, East and West Midlands, Yorkshire and the Humber and the West of England. This has been a successful programme for the businesses it has supported, for example:
  - [Generation Juice](#) – A taste for digitalisation
  - [Lakes Ice Cream](#) – Technology to transform
  - [Bells of Lazonby](#) – Introducing robots
  - [Len Wright Salads](#) – Saving energy with less waste
  - [Bury Black Pudding Company](#) – A smart black pudding company
18. However, the demand is far greater than the resources available. For example, there were 80 food and drink companies who put forward a bid for the Made Smarter programme in the East Midlands and only 6 businesses were successfully awarded grants. We welcomed the government announcements last year that the programme will be expanded nationwide and continue to support their work. We also welcomed the announcement of permanent full expensing which provides greater certainty for investment in capital expenditure.
19. Investment is critical to accelerating the transition to Net Zero. Decarbonising manufacturing and supply chains requires action across all operations, including the adoption of new technologies, fuel switching as well as making improvements and greater efficiencies to existing processes.

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<sup>5</sup> [Strengthening the UK's Food Security: Innovation and investment in the Food Manufacturing Sector](#), Policy Exchange, August 2024

Government support is vital for investment in energy efficiency and deep decarbonisation, building experience and confidence in these new technologies for food and drink manufacturing. An example of this is the **Industrial Energy Transformation Fund (IETF)**. To build on the successes of the IETF, the government should commit to new funding rounds and extending eligibility (business size and sector) and simplify the application process to make proportionate to size of business and award. There are many positive learnings to take from the IETF, including the longevity of the fund and clear sight for businesses on funding windows, which gives businesses time to thoroughly plan and make the case for investment internally.

20. At [FDF's inaugural Investment Summit](#) in November 2024, we launched our newly formed **Food and Drink Technology Taskforce**. This Taskforce will take forward the findings of the Newton Future Factory report and brings together technology and digital experts to create industry-led solutions to accelerate the adoption of automation, digital and AI. The Taskforce will produce an interim report to Defra's Secretary of State in the summer and will present their full recommendations at the FDF's next Investment Summit 2025 in November. We would be keen to engage with DSIT's policy team where appropriate.
21. The FDF has also created a one-stop shop, the **Food and Drink Innovation Gateway**<sup>6</sup>, to connect all UK-based food and drink manufacturers, particularly SMEs, with a wide range of independent advice and expertise, from government-backed catapult centres and universities to private sector service providers. There is an opportunity to go further with this support service in partnership with government.

### Skills

22. We welcomed the announcement of the new body Skills England to bring together the current fractured skills landscape and to better develop a single picture of national and local skills needs. The current skills system is complicated and non-cohesive, making it very difficult for employers to navigate. It is even more difficult and almost impossible for the 97% of 12,500 food and drink businesses that are SMEs, located all around the country, to access the high-quality training provision and attract the future talent they need. This week, we also welcomed the Department for Education's announcement that changes to the English and maths requirements for Apprenticeships are being relaxed, and allowing employers to decide on the level of functional skills that apprentices over 19 years old will need relevant to their occupation. This has long been a barrier for employers and will increase the participation in Apprenticeships, particularly for older, more experienced workers who could benefit from upskilling through an Apprenticeship and address long-standing skills gaps across the sector.
23. There is still much more work to be done to ensure that food and drink manufacturers have the skills they need to continue providing healthy, safe, sustainable and nutritious food, while remaining resilient enough to adapt to the challenges ahead. We look forward to working with the Skills England on the development of the new **Growth and Skills Levy** to ensure the skills system can offer:
  - **Targeted approach to more flexible spending** including modular, quality-assured training courses which would deliver real productivity gains but at present are not covered by the current Apprenticeship Levy. This should successful industry-led programmes such as the Food and Drink Careers Passport and the training programme, delivered by Wigan and Leigh college and co-funded by the Greater Manchester Combined Authority, to multi-skill engineers and upskill technical operators.
  - **High quality training provision** accessible to all businesses across the country. More investment in training provision across all parts of the country is needed to improve the

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<sup>6</sup> <https://www.fdf.org.uk/fdf/resources/toolkits/innovation/innovation-gateway/>

standard and consistency of delivery. The more expensive apprenticeships (i.e. engineering) are underfunded and that can impact the quality of delivery.

- **Greater alignment between Apprenticeships and Technical Education.** We need an apprenticeship and technical education system that is aligned and works for employers while ensuring students have a clear trajectory for their career progression, making it a more attractive route.

### Future action to drive technology adoption

24. We believe that the following important steps are required to support a true technological transformation for food and drink manufacturers:

- **Ensure joined-up policymaking through the upcoming Food Strategy:** A more coherent approach to the development and effective delivery of food policy across Whitehall departments and the Devolved Administrations would provide the stable and supportive regulatory environment needed for industry to invest in a productive, sustainable and healthier food system in the UK while continuing to keep costs down for businesses and consumers. This includes working hand-in-glove with industry and other Departments such as DfE, DHSC, DSIT and DBT.
- **Cement food and drink as a crucial growth-driving sector within the Industrial Strategy:** Food and drink is the UK's largest advanced manufacturing sector – ensuring that is enshrined within the Industrial Strategy's growth-driving sectors would ensure that the industry can maximise its growth potential through investment in technology and skills.
- **The creation of a formal Food and Drink Innovation Partnership:** To support the delivery of a long-term growth strategy for advanced manufacturing. This would be a joint venture between the industry, government, UKRI and academia to ensure policy and funding programmes are targeted effectively across the whole food system and not narrowly focused on agri-tech – to deliver greater returns on investment. This partnership would drive investment into the government's missions on health, net zero and growth which mirrors the three themes identified in Innovate UK's food industry priorities for a sustainable food system – ensuring that the UK's food and drink sector remains competitive and cutting-edge. It would also ensure that research has outcomes applicable in industry.
- **Accelerate the adoption of automation and digitisation** through:
  - Strengthening innovation ecosystem with a network of **demonstrator sites** using the High Value Manufacturing catapults and university centres of excellence.
  - Continuation of a national roll-out of the **Made Smarter programme** to meet growing demand of food and drink manufacturers seeking to digitise their operations.

25. Broadly, we would encourage government to keep their definition of technology adoption broad and take an adaptive approach that supports and incentivises different businesses at different stages of development. It will be important to encourage programmes and support, such as Made Smarter, which deliver effectively across the economy, especially focusing on technology readiness and market readiness for SMEs.

26. We would also ask government to take a holistic approach when looking at technology adoption by businesses, including the effect of regulation on businesses and how this can disincentivise investment. We would request government consider what levers can be adjusted that will incentivise investment and help to achieve the large growth gains available to the UK economy.