# Food Surveillance Programme (FSP)

The Food Surveillance Programme (FSP) builds on existing infrastructure and the success of PATH-SAFE to deliver an efficient mechanism for the rapid delivery of innovative and catalytic activities to increase food security. Aligning with wider government initiatives (in particular the UK Biological Security Strategy), it builds on work successfully delivered under the PATH-SAFE programme and other Food Standards Agency (FSA)-funded surveillance projects.

Food safety is essential to food security and food is one of the UK's critical national infrastructures. With an estimated 18 million cases of infectious intestinal disease every year in the UK, the food supply chain and wider environment are the most significant routes of transmission to humans, especially as many of the key pathogens are zoonotic and originating from livestock. Foodborne pathogens also carry antimicrobial resistance (AMR) and pose a major risk of spreading from animals to humans.

Despite this, the UK's investment in food surveillance is limited and fragmented. Building on existing infrastructure and prior HM Treasury (HMT) investment (£24 million) via the PATH-SAFE programme and other Food Standards Agency (FSA)-funded surveillance projects, the FSP aims to bridge the gap between animal and human health and join up industry and government.

Part of the Science and Research Unit within FSA, the Biosurveillance Team are responsible for the delivery of several elements of the programme. The projects delivered by the team aim to prime our delivery capability going forward by securing essential buy in, data sharing and functionality for the National Genomic Data Platform, and reduce the complexity of the surveillance landscape through continued stakeholder engagement and frameworks for better surveillance by utilising new methods, tools and approaches.

## Key aims

Strategic areas of focus for the Biosurveillance Team include:

- asset enhancement, implementation and knowledge generation to improve biosurveillance
- exploring and deploying new technologies and approaches to enhance efficacy and efficiency of future surveillance programmes
- continued collaboration and facilitation as part of a cross-government, One Health approach to UK biosecurity

## Intended outcomes for 2025–2026

The intended outcomes of the 25/26 programme are to:

- improve the real-time detection of pathogens and accurate location of outbreaks via the enhancement of the PATH-SAFE data platform, source attribution modelling and an exploration of AI-driven analytics and onsite diagnostic tools
- strengthen integrated delivery across HM Government (HMG) and the collective response of One Health partners to potential or actual pathogen outbreaks

- build on partnerships established under PATH-SAFE, to maintain momentum on breaking down barriers to delivery, aligning with complementary initiatives/strategies and maintaining surveillance-centric communities
- improve the effectiveness of foodborne disease (FBD) and AMR surveillance by upgrading routine testing carried out by HMG, by developing and deploying practical surveillance tools in real-world settings, enhancing speed and reliability of identifying pathogens and AMR, embedding the use of genomics analytics into routine investigations and effective engagement of end users from other sectors in testing to ensure new methods are feasible and cost-effective for broader adoption

# Funding source and timeline

The FSP has secured funding for 2025–2026 and is awaiting the outcome of further funding bids to 2029–2030.

In 2025–2026:

- £1 million has been secured from the Integrated Security Fund (ISF)
- £0.56m has been secured from FSA research budget
- we are also looking to leverage funding opportunities elsewhere in government and to align and collaborate on projects wherever possible

# Programme themes

The programme will include 4 workstreams, aligning Food Standards Agency (FSA), Food Standards Scotland (FSS), Department for Environment, Food & Rural Affairs (Defra) and our Integrated Security Fund projects into one National Food Surveillance Programme.

## Data & tools

PATH-SAFE built on existing data initiatives and understanding user needs, and the programme provided an infrastructure enabling more targeting of food safety interventions. This programme aims to further this work in 25/26 by enhancing the PATH-SAFE genomic data platform functionality, developing attribution models to define the possible source of human infection and investigating the use of AI to enhance biosurveillance capabilities.

## STEC surveillance

Shiga-toxin E.coli (STEC) is a re-emerging public health issue, with the rise of new strains exacerbated by climate change. There is an urgent need for research to better understand and formulate effective interventions. Making use of existing river water surveys for the detection of the Ralstonia solanacearum species complex (RSSC), and applying the concept of ‘sample one, test for many’, the 25/26 project will analyse these routinely collected samples for the presence of STEC. The project will utilise and compare traditional methods (LAMP), aiming to provide evidence as to the feasibility and suitability of LAMP as a rapid, in-field surveillance technology for STEC analysis of water.

## Onsite diagnostics (OSD)

The border target operating model (BTOM) guidance (2023) highlights that there are significant disease hazards associated with imported commodities. The development and facilitation of OSD for pathogen surveillance will provide early detection systems for established, new and emerging risks. With a focus on sanitary and phytosanitary controls, the FSP builds on the success of

PATH-SAFE (such as feasibility and deployment studies) seeking to investigate the data, technology and relationships needed to deliver a robust border surveillance system. Utilising the outputs from PATH-SAFE, the 25/26 project will explore the use of OSD technologies for deployment at borders and/or abattoirs and we intend to link this work to already advanced OSD work led by Defra Plant Health.

### Programme management, monitoring and evaluation

A key theme that emerged from PATH-SAFE was the importance of efficient coordination and facilitation to enhance appropriate use of research outputs and enable join-up and collaboration, and the necessity to collaborate in effective risk management and incident response. We seek to expand these links, sharing best practice, lessons learned and sustaining what has already been created. In parallel with delivery, programme monitoring and evaluation will be undertaken and an impact workstream, building on previous PATH-SAFE work, will be developed.

## Get in touch

Updates will periodically be added to this page. If you would like to get in touch with the Biosurveillance team, you can email them at biosurveillance@food.gov.uk.