



UK experience with the regulation of **novel and emerging foods**

Fact-finding mission destination: London, United Kingdom

Fact-Finding Mission London

Biosolutions Forum+ conducts several fact-finding missions with the aim of gathering regulatory insights, learnings and best practices on how to regulate new innovative biosolutions smarter.

The aim of the missions is to gain a deeper understanding of better regulatory pathways for innovative solutions, approval requirements and potential barriers, enabling companies to navigate regulatory processes more efficiently and bring innovative solutions to market faster.

Each fact-finding mission consists of a selected delegation of companies and researchers, and observers from the Danish authorities relevant for the targeted destination.

The fact-finding mission to the UK included visits to Imperial College London's Bezos Centre (with presence of The Food Standards Agency (FSA) and Alternative Proteins Association (APA)), Multus, The Department for Business, Innovation, Science and Trade (BIST), and Better Dairy.

Main takeaways

- ✓ The Engineering Biology Sandbox Fund led by BIST implements the UK government's National Vision for Engineering Biology, published in December 2023, and its initiative on regulatory sandboxes. The Fund allocates £5 million for 3 to 5 regulator-led regulatory sandbox projects, each running for 6-24 months.
- ✓ As a result of a regulatory sandbox for cell-cultivated products – and the derived Business Support Service (see links below) – businesses have reported a faster initial feedback from the FSA. The average time taken by the FSA to ask applicants for additional information fell from **195 days before the sandbox to 46 days in 2026**, a reduction of approximately **80%**
- ✓ This is a result of clearer guidance and more dialogue that has created stronger applications and greater regulatory capacity.
- ✓ BIST advised, that regulatory sandboxes need 1) dedicated funding, 2) political and executive ambassadors, 3) a well-coordinated project plan and project organization, and finally 4) an organizational culture in favor to secure the changes after the expiration of a regulatory sandbox.

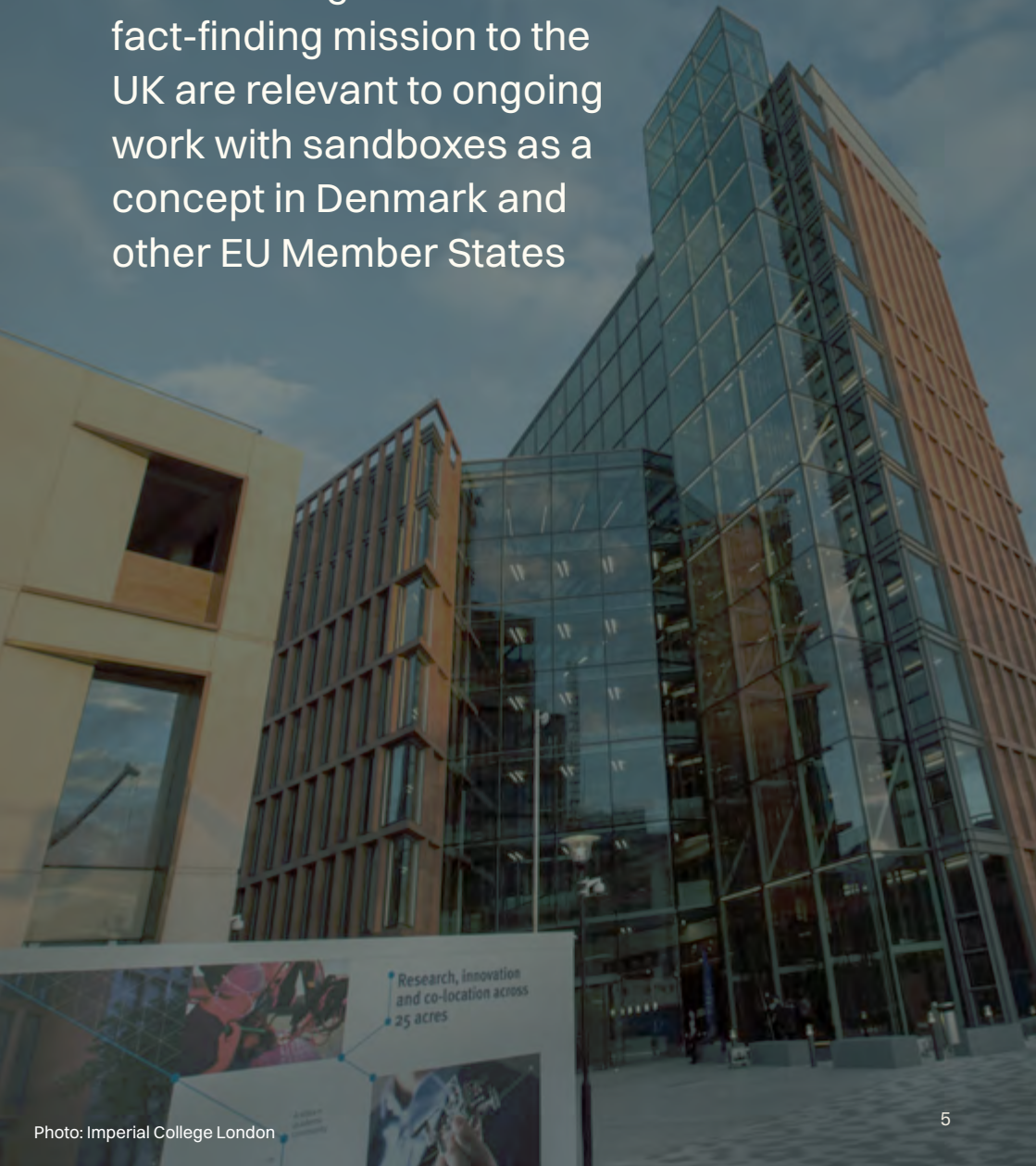
The regulatory landscape

The UK Government has taken steps to support biosolutions by making regulatory pathways clearer and helping companies bring innovative products to market faster. These include the Engineering Biology Regulators Network, established in 2023, and the Engineering Biology Sandbox Fund (commits £5 million to fund sandbox projects that must be concluded in 2027), which funds collaboration between regulators and industry. Initial sandbox projects focus on cell-cultivated foods and engineered bacteriophages.

For cell-cultivated foods, the Food Standards Agency and Food Standards Scotland run a two-year sandbox. The program combines industry workshops, scientific expertise and coordination across government and international regulators to develop guidance and improve regulatory assessments.

Its Business Support Service offers tailored advice before and after companies submit applications. By September 2026, nine companies had used the service through 14 requests, and two had subsequently submitted applications following this support. Results also include new technical and regulatory guidance and improved company understanding of application requirements. Together, these measures aim to reduce uncertainty and delays while maintaining food safety standards. The parameters to the service are listed in the links below ('Cell-cultivated products Business Support Service').

The lessons on regulatory sandboxes gained from the fact-finding mission to the UK are relevant to ongoing work with sandboxes as a concept in Denmark and other EU Member States



Solutions

The UK approach combines regulatory learning with practical support for applicants. The sandbox is used to clarify technical questions and develop public guidance without derogations from the UK food legislation. Participation in the regulatory sandbox does not itself confer authorisation or priority market access. Lessons are translated into shared knowledge that can also be used beyond participating companies.

For Denmark, a clearly defined pre-application service is recommended to help businesses understand regulatory requirements and prepare stronger applications. Businesses should provide a structured description of their product, production process, intended use and available safety data, alongside specific questions and identified knowledge gaps. National authorities should clearly explain the scope of their support and distinguish between questions they can address nationally, those concerning EFSA's scientific assessment and those requiring clarification from the European Commission on authorisation procedures. The service should complement existing EU support and help companies identify the appropriate route for resolving outstanding questions.

The UK experience illustrates the potential benefits of combining this service with clearer guidance and stronger regulatory capacity. The FSA reports that the average time to issue its first request for further information on cell-cultivated product applications fell from 195 days before the sandbox to 46 days for requests issued in 2026, a reduction of approximately 76%.

The FSA attributes improvements to stronger applications, clearer guidance and knowledge gained through the sandbox. This is an encouraging indicator of more efficient processing, although it measures an early assessment step rather than the total time to market authorisation.

The BIST's model illustrates the value of targeted funding for regulatory learning and coordination. For Denmark and other EU Member states, a comparable initiative should combine dedicated funding with sustained ministerial and senior management support, clear responsibilities and effective coordination between authorities, businesses and scientific experts.

The UK's six-month sprint approach offers a useful model for setting concrete deliverables and adapting priorities as knowledge develops. An organisational culture that supports dialogue, knowledge sharing and continuous improvement is equally important. From the outset, the initiative should include a plan for transferring expertise, guidance and working methods into permanent operations when the sandbox ends.

Impact should be measured through application quality, processing times at defined stages, the number and nature of additional data requests, and businesses' perceived predictability of the regulatory process. Baselines and regular reviews should distinguish improvements in administrative efficiency from progress towards final authorisation. Regulatory support should also sit alongside investment in research and commercialisation.

GFI Europe's 2025 analysis reported £75 million in UK public investment in alternative proteins between 2020 and mid-2024, illustrating the scale of the wider innovation effort supporting regulatory initiatives.



Next step could be to establish an informal European regulatory sandbox forum bringing together business associations, authorities and companies.

Further perspectives

The lessons on regulatory sandboxes gained from the fact-finding mission to the UK are relevant to ongoing work with sandboxes as a concept in Denmark and other EU Member States, despite differences between the UK and EU regulatory systems.

How these lessons can be applied will depend on whether a measure concerns working arrangements, the legal framework or authorisation itself. A Danish regulatory sandbox should address specific regulatory questions concerning, for example, emerging foods, precision fermentation and microbial cultures. Involving relevant EU bodies, including EFSA where relevant, can give the lessons learned an international dimension and strengthen their guidance to regulatory work and future authorisation applications across the EU.

Potential Partnerships

The fact-finding mission identified several potential areas for collaboration.

- The FSA could be a partner in exchanging experience on guidance, pre-application support and regulatory sandbox evaluation.
- Imperial and DTU could build on the collaboration discussed during the visit, focusing on regulatory science, education and analytical evidence.
- APA could contribute with industry perspectives and experience with controlled taste trials, while Better Dairy could provide practical business cases.
- BIST is a relevant dialogue partner on funding regulatory capacity and networks across regulators.

A further next step could be to establish an informal European regulatory sandbox forum bringing together business associations, authorities and companies. The forum could collect and share best practices from regulatory sandboxes across Europe and build a shared understanding of their potential and limitations as a regulatory tool and an instrument to create faster market access for new innovations. Biosolutions Forum+ could be a possible coordinator of such an initiative.

Links

Engineering Biology Sandbox Fund - **GOV.UK**

Engineering Biology Regulators Network - **GOV.UK**

Cosmetics Sandbox – Bioengineered Ingredients - **GOV.UK**

Precision Fermentation Business Support Service (BSS)
- **GOV.UK**

Cell-cultivated products Business Support Service - **GOV.UK**

Regulatory Sandbox for Cell-Cultivated Products (CCPs) |
Food Standards Agency

Innovative Food Guidance Hub | Food Standards Agency

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