

Official Food and Feed Laboratory Services in Scotland: The Case for a Nationally Funded Delivery Model

1 Purpose of the paper

1.1 This paper is for **decision**.

1.2 Food Standards Scotland (FSS), as a UK competent authority, is legally required to have access to adequate laboratory capacity for analysing samples that are taken for the delivery of official controls (including surveillance) needed to ensure the application of food and feed law. In Scotland, these official laboratory (OL) services are reliant on the four Public Analyst (PA) laboratories which are operated by Aberdeen, Dundee, Edinburgh and Glasgow City Councils. As a result of Local Authority (LA) budget pressures over the past decade, national provision of Environmental Health (EH) services has been much reduced¹, resulting in a significant decline in sampling activity and therefore less income for the four PA laboratories; a situation which has been further compounded through a lack of investment by the majority of the other 28 LAs. It is clear that the financial pressures affecting these services are not going to alleviate, and, in light of the acute shortage of EH officers being trained, and a lack of scientists entering the PA profession², the future viability of our PA laboratories is now under significant threat.

1.3 Geopolitical impacts on our food chain, coupled with scientific advances in public health surveillance, are placing an increased focus on food sampling and analysis and it is now clear that the current model for funding and delivering OL services in Scotland is no longer aligned with national requirements. The loss of OL capacity in Scotland due to lack of finance would have serious consequences, not only for the work of FSS and LAs, but for wider Scottish Government public health and food policy; significantly impacting on our ability to:

- investigate outbreaks of foodborne disease;
- assess the impact of dietary interventions;
- monitor the safety, standards and authenticity of food and feed placed on the Scottish market, including imported products;
- support requirements with regard to trade assurance, which have become increasingly important in a post EU Exit landscape.

1.4 The impacts of the pandemic and global disruptions to our supply chains have served to further underline the need for a strong public sector food science base, and if SG and Ministers wish to maintain this capability in Scotland, urgent action is needed to protect it. Failure to do so presents an imminent risk, not only to consumers, but to Scotland's future

¹ For example in Edinburgh, EH services have declined by 50% over the past 10 years.

² There are currently a very small number of qualified public analysts working in Scotland, and at present it takes approx. 5 years to qualify as one. Lack of opportunities for progression and difficulties in retaining high calibre staff have also resulted in a shortage of suitable candidates coming through the PA qualification. Irrespective of this being a statutory appointment it will be important that the concerns around succession planning are addressed.

ambitions with regard to international trade and the economic growth and reputation of its food and drink industry.

- 1.5 Over the past year, FSS has been engaging with key stakeholders on this matter and has discussed with the four PA laboratories and the relevant council CEOs a range of alternative options which have the potential to safeguard our OL services into the future. While there is a need for further work to identify a viable delivery model, there is no doubt that a more unified, nationally funded service would significantly enhance our ability to optimise laboratory resources, build capability, and co-ordinate food and feed surveillance activities which are fully integrated with wider food and public health strategy.
- 1.6 The Board is asked to:
- **Note and comment** on the strategic consequences of a failure of official food and feed laboratory services in Scotland, the action needed to safeguard future provision of these services, and the role of FSS in driving this;
 - **Agree** for the Chair to make a formal approach to Scottish Ministers on the issues outlined in this paper and the need to commission a business case for a model which will support optimum delivery of these laboratory services at a national level.

2 Strategic aims

- 2.1 This work supports FSS Strategic Outcomes 1 – Food is Safe and Authentic; and 3 – Responsible Food Businesses are enabled to thrive. It also links to commitments made in Goal 3 of our Corporate Plan to design sustainable food sampling strategies to support FSS evidence needs and ensure there is laboratory provision for delivering these programmes.

3 Background

- 3.1 The chemical analysis and microbiological examination of food and animal feed play a key role in protecting public health and safeguarding consumer interests. In Scotland, the scientific services required to verify food and feed safety and standards are reliant on the four Local Authority (LA) operated Public Analyst (PA) laboratories in Aberdeen, Dundee, Edinburgh and Glasgow. These laboratories are highly specialised; being officially designated as Official Laboratories (OLs) under Retained EU Regulation 2017/625³, and accredited to deliver the scientific services needed for food and animal feed law enforcement, incident investigations, surveillance and export assurance. These services are not readily available in the private sector, and no other laboratories in Scotland employ individuals with the qualifications and experience required by statute⁴. In fact, there are a

³ The list of designated OLs in Scotland are listed on the FSS website: [Official feed and food laboratories | Food Standards Scotland](#)

⁴ [The Food Safety \(Sampling and Qualifications\) \(Scotland\) Regulations 2013 \(legislation.gov.uk\)](#)

limited number of either public or commercial laboratories across the UK which offer the full breadth of accredited testing methods and expertise required by food and feed law.

- 3.2 The case for a strong public sector laboratory system for food and feed has previously been made in a number of government reports^{5,6,7}, and our experience in managing incidents has demonstrated the importance of maintaining this. The PA laboratories worked together to ensure Scotland was able to respond effectively to the Sudan 1 incident in 2005, and the horsemeat scandal in 2013, and they played an integral role in investigations into national outbreaks of *E. coli* O157 in Scotland in 1996 and 2016. While public health and consumer protection have relied on these laboratories for some decades in Scotland, changes arising from EU Exit have served to underline their importance in developing the evidence base needed to provide assurance over the increasingly complex standards that now apply to our food chain. OL testing expertise has a critical role to play in verifying the safety and authenticity of products imported into Scotland from existing and new trading partners, assessing the impact of changes made to EU food standards, and enabling Export Health Certification (EHC) to facilitate trade.
- 3.3 However, despite national dependence on the PA laboratories, neither SG nor FSS has any formal commissioning relationship with LAs as delivery partners, and increasingly stretched LA budgets and reductions in food sampling have put the future viability of this service at serious risk. The lack of a formal relationship between the LAs and FSS has also hampered our ability to provide strategic co-ordination across the four laboratories, resulting in a fragmented service that is poorly aligned with national priorities. Furthermore, there is no official agreement or obligation, for the other 28 councils, to use the services of the 4 PA laboratories. In the absence of such an agreement, many of these councils have been able to pull out of historic commitments that were made to maintain and invest in the service.
- 3.4 As a result of these issues, the current delivery model has not been able to evolve in a way that enables OL services to keep pace with changing requirements and be utilised in the most efficient way. Duplication of some routine services, coupled with a lack of targeted funding for method development has hampered scientific progress, leading to gaps in testing capacity and capability in some key areas. LA budget pressures have also impacted on recruitment and progression opportunities for OL staff, resulting in issues around retention of skills and succession planning.
- 3.5 The Scottish PA service has previously been subject to review, resulting in a recommendation for a Shared Services model, bringing the four laboratories together under a common funding and management structure. However, despite widespread support for this concept, LAs did not reach agreement on its implementation, and as a result, a formal proposal for change was never considered by CoSLA political leaders⁸. A paper was presented to the FSS Board in November 2019⁹, which proposed a potential role for FSS in developing a more co-ordinated and sustainable OL system for Scotland. The impacts of the COVID-19 pandemic and EU Exit hampered any subsequent progress, but it is clear that these events have exacerbated the situation and there is now an urgent need for action

⁵ [FSS Scudamore Paper 161004.pdf \(foodstandards.gov.scot\)](#)

⁶ [Elliott Review into the Integrity and Assurance of Food Supply Networks – Final Report \(publishing.service.gov.uk\)](#)

⁷ [Ray Jones Report \(webarchive.org.uk\)](#)

⁸ COSLA: Convention of Scottish Local Authorities [COSLA | COSLA](#)

⁹ [Official Control Food and Feed Laboratories - Enhancing Capacity and Capability for the Future.pdf \(foodstandards.gov.scot\)](#)

to determine the future of our laboratories if Scotland is to retain the food science capabilities which align with FSS's current strategic objectives, as well as SG ambitions for both public protection and the food and drink industry.

4 Discussion

- 4.1 Ensuring the safety and standards of our food chain is critical in protecting the health of Scotland's population and its economic success. The food and drink industry in Scotland is currently valued at £15 billion¹⁰, and a robust science and evidence base is essential in providing assurance over our domestic and global markets. However, long term underinvestment in our OL services has placed the country's food and feed scientific capabilities at risk of failure, which has serious implications for both public health and trade.
- 4.2 There is now an opportunity to consider how we can develop a stronger and more viable OL model for food and feed in Scotland; building on our existing laboratory infrastructure and expertise to deliver a service which meets Scotland's current and future needs with regard to official control verification, trade assurance and surveillance. Following engagement with key stakeholders (LAs, PAs, PHS, SEPA and FSA), and a review of food and feed OL systems in other countries, we have concluded that the most efficient way of addressing these needs is through a nationally funded OL service for Scotland.
- 4.3 A range of options exist for putting a nationally funded OL service in place, but there are ultimately two potential delivery models for consideration:
- **Shared Services**, with the four existing PA laboratories remaining within LAs but operating as a unified service under a formal collaboration agreement. This would require a funding mechanism that is ring-fenced and enables the laboratories to function without relying on individual LA budgets. There is scope for this to be configured as a Centres of Excellence model, with all four laboratories providing a blend of routine testing and different specialist techniques, to reduce duplication and optimise resources. This is a model which has proven to be effective in improving efficiency and strengthening capabilities elsewhere in Europe (e.g. The Republic of Ireland).
 - **A National Service**, with the laboratories coming together to operate as a single entity, and managed by SG or FSS. This model would facilitate more strategic oversight and governance of the existing service, enabling FSS and SG to review performance and identify where either rationalisation or strategic partnerships with other public sector laboratories (e.g. NHS, SEPA, SG research institutes) have the potential to enhance quality of service and value for money. With this model, it would be important to ensure that the increased demand in food and feed testing does not over-shadow other important EH services currently delivered by the existing PA laboratories (e.g. water testing, Legionella assessments), and that opportunities for generating additional income through these non-food and feed services as well as private sector contracts are not compromised.

¹⁰ [Homepage | Scotland Food and Drink](#)

- 4.4 FSS has worked with the PA laboratories to carry out an initial analysis which has helped us to outline a detailed rationale for a nationally funded model for OL services in Scotland. However, it will be necessary to commission a fully costed business case to identify the most viable and robust means of delivering these services at national level. This paper suggests two options – one which would enable the service to remain within LAs, and one which would involve the establishment of a new body which would operate independently. However, regardless of the governance structure, further investment will be required in order to ensure the service meets the following key requirements:
- **Resilience** The service must be capable of maintaining core capacity and capability with the flexibility needed to respond effectively to incidents.
 - **National capability** The service must be fully integrated with food and public health strategy in Scotland, with the ability to keep pace with changing priorities, emerging technologies and evidence needs.
 - **Quality** The service must have the infrastructure and expertise needed to deliver official controls and assurance in line with legal requirements and international standards.
 - **Efficiency** The service must be fully co-ordinated with other public laboratories to provide a network for food, water and environmental services for Scotland - optimising expertise and use of resources to provide a sustainable service that offers best value for the tax payer.
- 4.5 It is clear that moving to a new OL delivery model which addresses these requirements will require a level of new investment, and FSS is already taking steps to address this through enhanced funding for sampling. Over the past 7 years, we have provided the PA laboratories with £150-£200K annually to deliver our national food sampling programme. We are currently developing new surveillance sampling strategies for food¹¹ and animal feed¹² which aim to increase this budget to approximately £500-700K per year. However whilst these programmes will mitigate the impact of reductions in LA sampling on our evidence base and, to some extent, supplement PA income streams over the coming years, it will not be sufficient to sustain service provision into the future.
- 4.6 It should be noted that, while moving to a new delivery model will represent additional costs to government in the short term, the services provided by OLs enable more efficient targeting of interventions and therefore have the potential to support future streamlining of food law enforcement. Indeed, FSS has been working closely with LAs to develop parallel proposals which aim to set a new 'blue print' for intelligence led EH service delivery, including a more defined role for food sampling in the rebalancing of resources needed for official controls. It is clear that this plan to modernise Scotland's enforcement regime will depend on efficient and state of the art OL services.

¹¹ At the FSS Board meeting on 16 March 2022, a proposal was approved for a new nationally co-ordinated food surveillance programme for Scotland. This aims to deliver a more structured and targeted approach to food sampling, with greater oversight by FSS to optimise laboratory resources and the value of data that is generated. [07 - Board Meeting - 2022 March 16 - Development of a new food surveillance sampling strategy for Scotland.pdf \(foodstandards.gov.scot\)](#)

¹² Annual sampling programmes have been developed to support delivery of official controls on the animal feed sector in Scotland, for which FSS took responsibility in April 2021.

- 4.7 Moving to a nationally funded OL model would also provide the oversight needed to identify future cost savings, whilst continuing to enable generation of supplementary income through other scientific services for the public sector and commercial contracts. There may be further scope to recoup costs through charging for certain testing services (e.g. export assurance). It is also important to highlight that failure to take action now to safeguard the service presents a risk of losing it completely, which would generate significant additional costs in the future, both directly, to re-instate the necessary scientific expertise, and indirectly, due to the impacts of increased scrutiny of food and feed trade assurance arrangements and a decline in consumer protection.
- 4.8 This proposal has been developed with cognisance of other reviews of laboratory services that are currently taking place; most notably by the FSA and PHS. We have been working with the FSA to review both the delivery of OL services across GB, and how we optimise use of our UK National Reference Laboratory (NRL) network for food and feed. NRLs are designated under official control legislation to provide expert scientific support for delivery of official control testing and we have recognised scope for them to play a stronger role in the upskilling of OLs and delivery of more specialised services. Whilst recognising that a different approach may be appropriate for Scotland with regard to OL delivery compared with England and Wales, we are confident that our respective proposals for improving our national laboratory systems are aligned with UK strategy.
- 4.9 FSS has also been contributing to plans being developed by PHS for a more co-ordinated Scottish public health microbiology laboratory service for Scotland. A nationally funded OL service would greatly enhance the integration of microbiological food and feed sampling programmes into wider public health strategies, supporting Scotland's ambitions for a One Health approach to disease surveillance. Consequently there is agreement between both organisations that there would be significant benefit in considering Scotland's future requirements for food and feed and public health microbiology jointly as part of a more strategic review. It will be important for FSS to continue to liaise with SG and PHS at both Executive and Board level to ensure a joined up approach when engaging Scottish Ministers on our respective proposals for the transformation of laboratory services in Scotland.

5 Options appraisal

- 5.1 As outlined in this paper, there are a number of potential options for moving to a nationally funded OL service; however, it will be necessary to commission a fully costed business case to appraise these options, and identify a suitable delivery model which will meet Scotland's future needs.

6 Identification of risks and issues

- 6.1 In light of the current resource pressures impacting on Scotland's PA laboratories, and the potential that their services will continue to be eroded, it is critical that this proposal is brought to the attention of Ministers as soon as possible. There is a risk that the issues described in this paper will not be given sufficient priority due to on-going political uncertainty resulting from EU Exit, and the focus on wider public health priorities post COVID. It is therefore important that we act now; working with SG and PHS to raise the

profile of OL services and ensure they are taken into account in future strategy for public protection and food and drink industry growth in Scotland.

- 6.2 FSS recognises that moving to a new model for delivering laboratory services in Scotland will be a significant challenge, and dedicated resource will be required to manage any agreed programme of change. It is envisaged that implementing this proposal will involve a staged approach, requiring additional funding both to maintain the existing laboratories in the short term, and to support a longer term programme of change towards a more efficient nationally funded service.
- 6.3 As the Board will be aware, the recent Resource Spending Review provides particular funding challenges and the commissioning of a business case doesn't mean that funding would be provided. Nonetheless, it is clear that there is a significant strategic risk to Scotland's capability in this area and while ultimately decisions, including on funding, rest with Ministers, it is still important that the issues identified in this paper are raised.

7 Equality Impact Assessment and Fairer Scotland Duty

- 7.1 Equality Impact and Fairer Scotland Duty assessments are not considered necessary for this paper. The purpose of the paper is to agree that a new model is required to deliver public sector laboratory services to verify food and feed safety and standards for the benefit of all population groups in Scotland.

8 Strategic Considerations for the Board

In considering the issues outlined in this paper and how to address the recommendations made, the Board may wish to frame its discussions around the following questions:

- i) To what extent do board members consider it to be important for there to be provision of OL scientific services within the public sector in Scotland?
- ii) What particular concerns do board members have regarding the resilience of the current PA laboratory service in Scotland?
- iii) What role, if any, should FSS have in this area; both in terms of developing a business case for a more effective delivery model, and the future management of OL services in Scotland?
- iv) Does the Board have any preference at this stage in terms of a future delivery model i.e. either the Shared or National Service suggested in this paper, or any alternative option?
- v) Does the Board agree with the key requirements for a future delivery model that are laid out in paragraph 4.4 of this paper, and are there any other conditions that would need to be met when taking forward the development of a new model (e.g. in terms of priorities and oversight at local and national level).

9 Conclusion/Recommendations

- 9.1 It is clear that failure to protect our OL services presents a significant risk to the ability of FSS and its delivery partners to adequately verify the safety and standards of food and feed sold in Scotland. If the existing services cease to operate, it will not be possible to maintain and mobilise the testing capability and scientific expertise needed to support public health investigations and provide assurance over our future export markets. In light of on-going resource pressures on LAs it is clear that the current funding model is no longer sustainable and urgent action is needed to procure investment that will safeguard laboratory capacity and capability into the future.
- 9.2 The Board is asked to:
- **Note and comment** on the strategic consequences of a failure of official food and feed laboratory services in Scotland, the action needed to safeguard future provision of these services, and the role of FSS in driving this;
 - **Agree** for the Chair to make a formal approach to Scottish Ministers on the issues outlined in this paper and the need to commission a business case for a model which will support optimum delivery of these laboratory services at a national level.

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