

FSA update on response to Science Council recommendations on data usage and digital technology.

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1. Summary

1.1 The Science Council [Working Group on Data and Digital Technology](#) (Working Group 4) reported to the FSA Board in August 2020¹. The FSA's initial response² included a commitment to update the Science Council on progress within 12 months of receipt of its recommendations.

1.2 The Science Council is asked to **review and discuss** the update provided in this paper, along with the accompanying verbal briefing.

2. Discussion

2.1 We continue to advance the data and digital infrastructure and services we offer both within the FSA and to partners, remaining alive to opportunities to explore future innovation and for continuous improvement. The importance of data has never been greater, with new needs, such as the pandemic, and new innovations giving rise to opportunity.

2.2 This discussion briefly highlights ongoing developments aligned to the 6 recommendations from Working Group 4, although the Science Council should be reassured as to the increasing profile of data within the FSA and the progress made on many fronts.

¹ [Working Group 4 Final Report](#)

² [Initial Executive response to Working Group 4 recommendations](#)

2.3 Recommendation 1: Champion an integrated approach to data standards.

Following the completion of the Science Council's Working Group 4 investigation, the [National Data Strategy](#) reiterated data standards as a key driver for change. The [consultation on the strategy](#), run by the Department for Digital Culture, Media & Sport (DCMS), has now closed, with general support for its proposals. The FSA will continue to engage with DCMS, and other government departments or bodies, for example the recently established [Data Standards Authority](#), in the development of relevant and pragmatic standards, along with their enablers such as data sharing agreements. The new [Central Digital and Data Office](#) (CDDO) within the Cabinet Office is also noteworthy. We continue to collaborate with private partners such as GS1 and BSI on standards and their enablers as well.

2.4 Recommendation 2: Grow the FSA's technical leadership for data.

Combining the data and digital and research and evidence teams under one directorate has improved the exchange of information and diversity of opinion and experience between our wider scientific leadership team. Several key posts, vacant or missing a permanent appointment during the period of the Working Group 4 assessment, have now been filled, including the Chief Information Officer, providing clearer directional leadership. More broadly, we have recently conducted a full capability needs assessment and will be looking at the case for resourcing and skills development further in the future. We also continue to leverage our senior data leadership networks whether in government, academia, or from the tech sector for strategic insight/guidance. Particularly noteworthy has been engagement with a senior community of interest in relation to AI Ethics and a network on Digital Twins.

2.5 Recommendation 3: Champion the principles of permissioned data access and open data.

We continue to build on the learning from the Data Trust project that Working Group 4 initiated, with translational impact the priority. For example, the ongoing Open Ecosystem Federation partnership, as was introduced in the Science Council's March meeting. We continue to engage with and learn from innovation in this area whether technical or in the development of new governance models.

2.6 Recommendation 4: Whilst remaining responsive to rapidly emerging opportunities for innovation, the FSA would benefit from more consistent completion of the 'innovation cycle' and long-term monitoring of impact for data innovations.

Several current or previous prototypes developed by our Strategic Surveillance Team are in live service and undergoing operational refinement. More evidence is now available with respect to benefit realisation of these tools. The governance is in place to ensure this is done. For example:

- The Signal Prioritisation Dashboard has matured from its early implementation, with consideration now given to further enriching its data sources and future scalability. The tools development has cost approximately £200,000 but it has reduced our dependency on third-party systems, with an annual saving of £60,000.
- Our Risk Likelihood Dashboard was a key informer of a targeted commodity list for an imports sampling exercise in February and March 2020. The percentage non-compliance ratio in sampled commodities increased from 6.06% to 14.04% compared to previous efforts and 6 out of 24 commodities where the Risk likelihood Dashboard was utilised to inform sampling detected noncompliance compared to 2 out of 33 commodities selected using other sources.
- The accuracy and speed of a tool developed for the automated identification of feeds from manifests has undergone refinement with two Local Authority partners, helping ensure it is fit for intended real-world use.

- We have been exploring the use of Artificial Intelligence to predict food hygiene compliance and whilst still undergoing improvement, we aim to make this tool available to help Local Authority partners prioritise inspections that have not been possible during the Covid-19 pandemic.

A summary of our Strategic Surveillance portfolio is available in the [November 2020 Board Update](#).

- 2.7 Recommendation 5: Encourage the development of data capabilities and skills across the FSA staff base.

We have launched a digital skills assessment tool, for staff to self-assess their digital skill level and identify areas for potential improvement. This is in line with the government's [National Skills Framework](#). To improve any gaps that may be identified, we have launched a number of digital skills training modules and we will continue to add to that learning set. In addition to that learning set and resources available through the relevant Civil Service Professions, we encourage our data staff to take advantage of the training on offer from both academic and technology organisations on topics such as AI and data visualisation.

We are mindful of how we can continue to access emerging data and digital skills through our mixed procurement strategies. As an example, a recently appointed FSA research fellowship with the University of Birmingham, looking at advancing in silico methods for toxicological risk will not only support the development of this approach in isolation, but is expected to provide knowledge transfer to the FSA.

- 2.8 Recommendation 6: Ensure the FSA is sufficiently equipped to attract, reward and retain internal skillsets, whilst continuing to endorse flexible means of providing data skills and capabilities for the FSA.

We continue to endorse a mixed procurement strategy in accessing the skills we require. This alleviates the risk of role-type specific bottlenecks as the needs of our work pipeline varies over time.

Maintaining a high and positive profile for the FSA as a great place to work with data is also critical to ensuring we have the right people when we need them. We do this through sharing what we do, talking on relevant platforms, which this year has afforded many opportunities to do so, in spite of the pandemic.

3. Conclusions

- 3.1 We continue mature our data and digital capability, capacity and innovation aligned to the Working Group 4 recommendations.
- 3.2 The Science Council are asked to **review and discuss** the update provided in this paper, along with the accompanying verbal briefing.