

Sent by email

3 August 2026

Dear Minister,

Re. AI policy and the role of statistics in evaluation and regulation

I am writing to congratulate you on your appointment to attend Cabinet as Minister for AI and to introduce you to the Royal Statistical Society (RSS).

The RSS is a membership society and chartered body for statisticians and data scientists. We have over 7,000 members based in the UK and working across academia, industry and the Government Statistical Service. We are a charity with strategic objectives to improve the use of statistics and data in decision making and improve public understanding of statistics. We have a keen interest in AI – seeing it as a fundamentally statistical technology and, as such, seeing statistics and data science as essential in properly evaluating and regulating the technology. We work by connecting our members' expertise with decision-makers, to help ensure that statistical considerations are factored in where they are relevant. We would be keen to work with you and your team as you take the AI brief forward.

We [publicly welcomed](#) your appointment to Cabinet, as it reflects the increasingly cross-cutting nature of AI policy and the importance of ensuring effective coordination across government. We were also pleased to see your personal leadership of the AI brief continue – continuity is especially important in a context where changes to departmental responsibilities might otherwise risk slowing progress on AI evaluation, governance and regulation.

I would also like to take this opportunity to share two recent RSS publications: [AI is Statistics](#) and [AI Regulation Needs Statistics](#). Our central argument is that AI systems are fundamentally statistical in nature, and that this has important implications for how they should be evaluated, regulated and used. In particular, questions about reliability, uncertainty, robustness and variation in performance are fundamentally statistical questions, and they sit at the heart of effective AI governance.

In many respects, AI regulation is an evaluation challenge: regulators need credible ways of determining whether AI systems are safe, reliable and effective in the settings in which they are actually deployed. This is especially important because AI systems are not static technologies. They are probabilistic, context-dependent and often adaptive, meaning that systems which appear to perform well in testing can behave differently once deployed in real-world environments. Our work supports the broad logic of the UK's sector-based regulatory approach, as different sectors face distinct risks and challenges and sector regulators are often best placed to understand the contexts in which AI is used.

However, the success of this model depends on regulators having the capability to evaluate AI systems effectively. This includes understanding how reliable systems are, how performance varies across different groups and settings, how performance changes over time, how uncertainty should be interpreted and communicated, and when outputs can and cannot be relied upon. These are all areas where statistical expertise is essential.

Our concern is that the UK's regulatory framework has developed more quickly than the evaluation capability and methodological tools needed to support it. Strengthening statistical capability across



the regulatory landscape, and ensuring that regulators have access to robust approaches for evaluating AI systems in practice, will therefore be critical to supporting both responsible innovation and public confidence in AI.

We make five recommendations that would help address this. Given your role in providing cross-government leadership on AI, I wanted to highlight three that seem particularly relevant to your responsibilities:

1. **There should be clear responsibility for identifying and addressing gaps in AI regulation.** As AI increasingly cuts across sectors and departmental boundaries, there is a growing need for clear ownership of cross-cutting regulatory issues and for mechanisms to identify and address gaps in oversight. We think it is important that this function is supported by statisticians and data scientists who can help identify methodological challenges, evidence gaps and emerging risks at an early stage.
2. **Government should ensure that regulators have the powers to require evidence for high-risk AI systems.** Where AI systems are used in high-impact settings, regulators should be able to require evidence that they are safe, reliable and fit for purpose in practice. This includes evidence on accuracy, bias, uncertainty and performance across different groups. Giving regulators the powers to require and scrutinise such evidence will support effective oversight, responsible innovation and public trust in AI.
3. **Government should build statistical capability across regulators.** Government should ensure regulators and the wider public sector have access to the statistical expertise needed to evaluate AI systems, assess uncertainty, and scrutinise evidence about performance and safety. Evaluating AI systems is technically challenging, and many regulators currently lack the specialist expertise needed to do so effectively. Building this capability will be essential to ensuring that regulatory decisions are grounded in robust evidence.

Separately, I wanted to highlight the importance of maintaining the close relationship between AI policy and data policy following recent departmental changes. Questions of data quality, access, governance and stewardship are fundamental to both AI innovation and effective AI regulation. I hope that your Cabinet-level role will help maintain strategic alignment between these policy areas, which will be essential if the UK is to realise the benefits of AI while retaining public confidence in its use. We see this as an area where cross-government coordination will be particularly important.

The RSS has a substantial community of statisticians and data scientists working on AI across academia, industry and government, and we would welcome the opportunity to discuss how that expertise could best support the development of the Government's approach to AI regulation and governance. We would be delighted to meet with you or your team to explore this further.

Yours sincerely,



Dr Sarah Cumbers
Chief Executive

