ROYAL STATISTICAL SOCIETY

DATA | EVIDENCE | DECISIONS

RSS RESPONSE TO DEPARTMENT FOR SCIENCE, INNOVATION AND TECHNOLOGY'S CONSULTATION ON A NATIONAL ACADEMY FOR THE MATHEMATICAL SCIENCES

23 February 2024

1. The Royal Statistical Society is a learned body and professional society for statisticians and data scientists, with over 10,000 members. We are a founding member of the Council for Mathematical Sciences (CMS) and we have collaborated with our fellow mathematical societies to produce a joint response to the government's consultation on the establishment of a new national academy for the mathematical sciences. We support the CMS response and support the existing proto-Academy for Mathematical Sciences becoming the new national academy.

2. There are aspects of that response that we would particularly like to emphasise. First – the importance of the breadth of sectors and disciplines. The RSS is a broad membership society encompassing statisticians, data scientists and other data professionals working in universities, schools, government and industry. The mathematical sciences are broad and there are many areas where their application can drive innovation and improve productivity in both the private and public sector – this includes data science and AI (where the RSS has established expertise). The objectives of a national academy should emphasise the benefits of embracing the full breadth of the mathematical sciences. An academy with this focus would be well-placed to help address national challenges around productivity, translation of research and evidence-based decision making. From our perspective, it is important that statistics and data – as parts of the mathematical sciences which have significant impact upon public understanding of high-profile issues (such as the pandemic, climate change and AI) – have a prominent role within the Academy's remit.

3. Second – the importance of representing maths teachers in schools and colleges. The new academy should have a strong focus on supporting the pipeline for the mathematical sciences to meet the needs of academia, government and business. Recent research highlights points in the pipeline where students lose interest in mathematics at school. If the academy is to be effective in helping protect the pipeline for the mathematical sciences, it is important that it has strong links with teachers – who will have first-hand experience in, and deep understanding of,

the needs of school-age children. Strengthening the pipeline of mathematical scientists is especially important for statistics and data science. There is a growing recognition of the importance of these skills both for the economy and for individuals to be informed as citizens and it is vital that our schools and universities support students to operate in an increasingly data-centric world.

4. Finally – the importance of collaboration with the other organisations in this space. This means being an inclusive organisation with a good understanding of the interests and activities of its stakeholders – working to ensure that they all feel part of the Academy and are vested in its success. For the RSS, this means encouraging participation from a broad statistics and data science community. It is important that the overall approach is coherent and that the Academy works well with existing bodies and structures such that the wider mathematical sciences community is able to understand, navigate and influence the new landscape.