National Academy for the Mathematical Sciences:

Call for evidence

Closing date: 25 February 2024

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General information

Why we are consulting

The UK government recognises the important contribution the mathematical sciences can make to national success, and we have committed to supporting the establishment of a new Academy focussed on the mathematical sciences. This call for evidence seeks views and evidence to help develop the specific objectives of the prospective Academy and explore how these could be delivered.

Consultation details

Issued: 12 January 2024

Respond by: 25 February 2024

Enquiries to: mathsacademyuk@dsit.gov.uk

Consultation reference: National Academy for the Mathematical Sciences: call for evidence

Audiences: We are inviting views and evidence from all interested parties.

Territorial extent: UK-wide

How to respond

Written evidence can be submitted by completing the response form at [gov.uk](gov.uk) and then emailing the form to mathsacademyuk@dsit.gov.uk.

When responding, please state whether you are responding as an individual or representing the views of an organisation. We would also be grateful if you could provide your name and contact details (if you would be happy for DSIT to get in touch with you about your response) and limit your return to 1500 words.

Your response will be most useful if it is framed in direct response to the questions posed, though further comments and evidence are also welcome.

DSIT will also be holding a series of virtual roundtables during which evidence will be gathered through direct conversation with attendees. These events will follow an introductory presentation (virtual) to be held in January 2024 (exact date TBC). Please register your interest in attending both the introductory presentation and roundtables respectively at mathsacademyuk@dsit.gov.uk. Organisations are asked to limit attendees to a maximum of three individuals.

While we will make every endeavour to accommodate all who express an interest in attending these events, please be aware this may not be possible if demand is high, and we may need to further limit the number of attendees from each organisation.

Confidentiality and data protection

Information you provide in response to this consultation, including personal information, may be disclosed in accordance with UK legislation (the Freedom of Information Act 2000, the Data Protection Act 2018 and the Environmental Information Regulations 2004).

If you want the information that you provide to be treated as confidential please tell us via the response form, but be aware that we cannot guarantee confidentiality in all circumstances. An automatic confidentiality disclaimer generated by your IT system will not be regarded by us as a confidentiality request. We will process your personal data in accordance with all applicable data protection laws. See our privacy policy. We will summarise all responses and publish this summary on gov.uk. The summary will include a list of organisations that responded, but not people's personal names, addresses, or other contact details.

Quality assurance

This call-for-evidence has been carried out in accordance with the government's consultation principles.

If you have any complaints about the way this consultation has been conducted, please email: beis.bru@dsit.gov.uk.

The proposals

Mathematics underpins our modern world. From keeping aircraft flying, to measuring societal trends and understanding probability and risk. From decoding the beauty of the double helix, to enabling the global financial markets, unravelling the mysteries of the cosmos, and even baking a cake – mathematics touches every corner of our lives.

The government has consistently emphasised how essential it is to build mathematical capabilities in the UK and the importance of providing support to the sector in a long-term and sustainable way. We have also seen the success that the existing world-class National Academies have had over many years in supporting research in their respective disciplines, and we recognise the potential value of a similarly dedicated institution for the UK mathematical community.

The government is willing to support the creation of a National Academy focussed on mathematical sciences. We will engage with stakeholders in the mathematical community on the best way to achieve this, taking account of the existing landscape. The decision-making process we will follow is set out below – and we want to hear from as wide a range of perspectives as possible as part of this.

This work will build upon the recommendation of Professor Philip Bond's independent review 'The Era of Mathematics Review' and the recently published 'Independent Review of the UK's Research, Development, and Innovation Organisational Landscape', led by Sir Paul Nurse. Up to £6m of funding could be made available to support this initiative over the next three years – to be used to establish a new organisation or build upon an existing one – to deliver the outcomes and benefits that will be identified through our engagement with the sector.

DSIT intends that any partner(s) selected to deliver a new Academy would then take on a range of functions and build its organisational capacity in such a way that it would become a credible recipient of future HMG funding, charitable donations, and potential private sector funding, which could include commercial activity carried out by the organisation itself – in line with its wider purpose and objectives.

Objectives of the New Academy

These objectives are preliminary and designed to form a basis for engagement with stakeholders. Feedback from stakeholders will inform finalised objectives for the new Academy which will be published on gov.uk.

The mathematical sciences community in the UK is vibrant and innovative, with key voices in government, academia, education, industry, and non-profit sectors. A core aim of the new National Academy will be to provide independent and credible leadership to this community, in particular by:

- Helping the sector to speak with one voice, developing clear and consistent positions on how to promote and enhance mathematical sciences at all levels, and across all areas of society;

- Promoting mathematical sciences in ways which support economic growth and societal benefits;

- Convening, coordinating, and assessing views and evidence from across the mathematical community so as to provide high-quality independent advice to government and society;

- Strengthening the UK's mathematical sciences community, working constructively with the learned societies and forging links across academia, industry, government and wider civil society;

- Promoting the benefits of mathematical sciences and develop strategies to boost uptake of skills, qualifications, and careers in the UK.

The National Academy will need to work constructively with the learned societies that already respond to aspects of mathematical science, and forge links between the government, schools, colleges, and universities, the private sector, and wider civil society. This should include sharing ideas and supporting interchanges to build skills.

The National Academy should represent the whole of the UK, meaning England, Wales, Scotland, and Northern Ireland.

The National Academy should develop and promote strategies to develop mathematical skills across the UK in the long-term, setting out and promoting the action that should be taken to enable the UK to compete in the increasing number of industries underpinned by advanced mathematical skills, and to improve its position relative to international peers. Particular focus should be given to supporting the UK's competitiveness in advanced mathematical skills that support industries that will underpin future growth and prosperity, including Artificial Intelligence and Data Science.

The National Academy should support diversity of individuals and organisations in the mathematics sector, promoting mathematics and the development of advanced mathematical skills. It should aim to break down barriers and differences in attainment by sex, ethnicity, social background, and geography.

The National Academy should have the capacity to name fellows and sponsor awards. It should also aim to do this in a way that recognises ability and achievement across society, both within our most prestigious national institutions but also recognising talent and important work that happens across society.

Questions for stakeholders

To help us develop this work further we would be interested in any feedback on how a new or existing organisation could support the goals set out above. With that in mind, we would be grateful for feedback on any or all of the following questions:

1. Are these the correct objectives for a National Academy focused on the mathematical sciences to pursue? Are there any other objectives that the new organisation should pursue?

2. HMG is prepared at this stage to provide funding to support the initial establishment of a new organisation, but we are conscious that the future possibilities here are broad. Given this, what activities should the organisation specifically focus on in the first 1-2 years of its work, and what should it explore developing for the longer term?

3. There are a wide range of individual and organisational stakeholders already doing valuable work in the area, ranging from academics, to learned societies to the existing National Academies. How should the new organisation work to complement these existing entities and draw together their work?

4. The UK is home to many of the world's best scientific institutions, some dating back centuries and some much more recent, what lessons can the new institution learn from the experience of these organisations?

Written responses submitted online will supplement work done at the virtual events, which will focus on the same questions.

Next steps

DSIT's call for evidence exercise has now begun. We are inviting all interested stakeholders to submit written evidence following the steps set out above.

In parallel to this process, DSIT will be holding a series of online engagements with the sector. The first of these will be an introductory presentation held in January (exact date TBC), followed by a series of smaller roundtable discussions during which participants will have the opportunity to express their views on the prospective National Academy in conversation with DSIT officials and other sector stakeholders.

To register your interest in attending the introductory presentation and/or roundtables please contact us at mathsacademyuk@dsit.gov.uk providing the contact emails, names, and titles for all individuals who will wish to attend. Organisations are asked to limit attendees to a maximum of three individuals.

The call for evidence exercise will close on 25 February 2024. DSIT will then use the feedback to develop a final set of objectives and functions that a new National Academy would be expected to deliver. This information will be published on the gov.uk page within four weeks of the closure of the call for evidence exercise, and we will then invite stakeholders interested in delivering such an organisation to make themselves known to DSIT.

Updates will be made to the gov.uk page as this process advances.

This consultation is available from: www.gov.uk/government/organisations/department-for-science-innovation-and-technology

If you need a version of this document in a more accessible format, please email alt.formats@dsit.gov.uk. Please tell us what format you need. It will help us if you say what assistive technology you use.