

Royal Society of Biology priorities for the first year of a new Parliament



The Royal Society of Biology calls on the next Government to invest in the biosciences for a sustainable and prosperous future, and to promote STEM teaching, learning and expertise in schools, colleges, university, training and government.

The Royal Society of Biology (RSB) published a [general election manifesto](#) in 2023, highlighting the importance of the biosciences sector to the UK and making recommendations for the next Parliament to ensure the UK remains world leading. In this briefing for candidates standing at the General Election on 4 July, we set out priority actions for the first year of government. We would be happy to discuss these further.

1. Make the UK a leading G7 nation for research and development (R&D)

The UK should be a leading G7 nation for R&D investment and intensity, to drive prosperity and protect public and environmental health: the RSB supports related manifesto recommendations by the [Campaign for Science and Engineering \(CaSE\)](#) and [Wellcome](#). Recent polling by CaSE shows that most people want to elect an MP who supports R&D locally and nationally.

To foster a resilient and innovative R&D sector, we need a positive, responsible culture that attracts, retains and values a diverse and skilled workforce. This should build on excellent teaching and learning in the biosciences. Policymaking for R&D should be evidence-based and incorporate citizens' perspectives; regulatory pathways should be adaptive and pro-innovation.

The UK should co-ordinate and invest in integrated regional, national and international policy and R&D strengths, to maximise productivity and tackle inter-related global challenges – such as climate change, biodiversity loss, antimicrobial resistance, food insecurity and pollution. Close working with global policy and R&D communities, including through the UN Sustainable Development Goals, is crucial for elements of national security, such as mitigating climate change, or developing cross-border biosecurity and surveillance for emerging infectious diseases with pandemic potential.

In its first year, RSB calls on the new Government to:

- Commit to long term, secure and sustainable R&D investment through at least a 10-year funding settlement, to: meet the total costs and infrastructure needs of a leading R&D nation; provide incentives and stable, predictable policy commitments to drive business investment in R&D; and support responsible discovery and innovation, to deliver potential solutions such as climate-resilient crops.
- Unlock workforce skills for a more research-intensive economy, by following through on the R&D People and Culture Strategy and continuing to implement the Science and Technology Framework..
- Build and balance local, regional, national and international exchange and collaboration: remove barriers to attracting talent and research to the UK; commit to ongoing, stable participation in schemes including Horizon Europe and future EU Framework programmes; reinstate the 0.7% Gross National Income target for Overseas Development Assistance funding including continued prioritisation of R&D.
- Build up a strong, systemically co-ordinated cohort of scientifically literate personnel in the civil service and government. We need to ensure sound, evidence-based advice for policymaking and ministerial attention devoted to science-based issues of existential importance for people and the planet.

2. Promote STEM teaching and expertise

A world-class STEM workforce requires world-class education and training, whilst those students not continuing with science studies need a foundation to equip them for modern life. All students across primary, secondary and tertiary settings should be taught by high-quality teachers with disciplinary expertise. This means the Government must invest in evidence-led subject-specific continuing professional development (CPD) for teachers throughout their careers, and place disciplinary expertise at the heart of teacher recruitment and retention.

In its first year, RSB calls on the new Government to:

- Collect better data on teachers and disciplinary expertise, as a basis for action.
- Set out a co-ordinated STEM education strategy, with investment in teachers. To increase innovation and productivity, we need: an ambitious systemic approach to subject-specific professional development and retraining; long-term commitment to a £20,000 initial teacher training bursary for Biology specialists; expansion of the teacher training scholarship to more subjects, including Biology.
- Tackle the recruitment and retention crisis for teachers in England. For the sciences, recruit specialist teachers and remove the need for teaching outside areas of expertise.

3. Develop curricula and qualifications suitable for all young people in schools, colleges and universities

The National Curriculum needs reform, as it is restrictive and overburdened, especially in Biology. This should be led by learned societies and subject experts, informed by best practice and evidence, with learners' needs at its heart. The RSB's [Evolving 5-19 Biology](#) recommendations and curriculum framework (with a [summary for policymakers](#)) should form the basis of this reform in Biology. Learners aged 14-16 should follow a single route through the sciences, providing equality of opportunity for progression after GCSE. This single route should include Biology, Chemistry and Physics as identifiable subjects, timetabled distinctly, and taught by subject-specialists deployed within their specialism.

In its first year, RSB calls on the new Government to:

- Reform the National Curriculum, GCSE and A level qualifications, drawing on the expertise of RSB and other science specialists to inform curricula and qualifications.
- Provide dedicated funding for practical work in schools, colleges and universities, as an essential but neglected element of science learning.

The RSB is a single unified voice for biology: advising Government and influencing policy; advancing education and professional development; supporting our members, and engaging and encouraging public interest in the life sciences. We represent a diverse membership of individuals, learned societies and other organisations. Individual members include practising scientists, students at all levels, professionals in academia, industry and education, and non-professionals with an interest in biology.

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