

## **Possible Implications for Science and Engineering in Scotland in the Independence Debate**

A contribution from the Society of Biology to the Scottish Science Advisory Council  
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The Society of Biology is the UK's single unified voice for biology, representing a diverse membership of individuals, learned societies and other organisations. We have established a permanent presence in Scotland in recognition of the excellence of the Scottish science base which stands amongst the world's best. We are committed to ensuring that we provide the Scottish Government, Parliament and external policy makers with a distinct point of access to authoritative, independent, and evidence-based opinion, representative of the widest range of bioscience disciplines.

The Society welcomes the opportunity to contribute to the Scottish Science Advisory Council's timely consideration of the possible implications for science and engineering in Scotland in the independence debate. We pose a series of key questions pertinent to the interests of our membership to stimulate and assist the development of constitutional options which best support the excellence, international competitiveness and financial sustainability of Scottish science.

### **Context**

Scotland has a vibrant and productive science research base, ranking first in the world in terms of the rate its research papers are cited relative to GDP, and second in the world in terms of impact. Scotland's universities and research institutes attract around 14% of UK research funding: £230m from UK research councils, £130m from UK-based charities, £100m from the UK Government and £47m from industry, commerce and public corporations. An additional £64m is secured from EU research contracts. This diverse funding landscape builds resilience and maintains excellence across broad areas of research, while allowing flexibility of focus in the Government's strategic priorities.

Science, technology and innovation are key drivers of Scotland's future competitiveness and economic success and the life sciences industry alone contributes more than £3.1 billion to the Scottish economy. There is a pressing need to keep pace with the rate of investment of other nations in order to encourage private investors to choose Scotland as the location for their research and development activities. The Scottish Government must articulate its commitment to Scotland's scientific excellence through continued investment in research within a financial and regulatory environment that attracts, rewards and retains innovative companies, and talented researchers and associated professionals.

Scotland has a proud heritage of science and innovation, and this will be the foundation on which the health and prosperity of a future Scotland will depend.

## **Key Questions:**

### ***Future funding of science***

1. Will Scotland continue to subscribe to the dual support model for university research funding? If so, how will this be organised with respect to the current system of quality-driven resource allocation through the UK-wide Research Excellence Framework?
2. Will researchers in Scotland continue to have access to funding from the UK Research Councils? If not, how will research funding in Scotland be organised in the future, and how will the Scottish Government ensure continuity of funding during the transition? How will a robust and fair mechanism for peer review of research proposals be assured?
3. Will constitutional change in Scotland impact on research and studentship funding from UK charities? Will the Scottish Government continue to meet the full economic costs of charitable research funding and other external research income, currently paid through the Scottish Funding Council?
4. How will the current level and balance of research funding be maintained across disciplines and institutions?
5. What will replace the funding from UK Government initiatives, for which researchers in Scotland compete so successfully?
6. What mechanisms will operate to enable collaborative research and sharing of facilities with researchers in the UK?
7. Will researchers in Scotland continue to be eligible for European research funding streams such as Horizon 2020 and how will the Scottish Government ensure continuity of access to funding should EU membership be subject to negotiation?
8. Will Scottish Universities continue to be able to charge fees to students from the UK? If not, how will any resulting funding shortfall be managed?

### ***Regulatory Framework for Science and the Professions***

9. How will Scotland arrange the regulation and licensing framework for research and development which is currently overseen by UK-wide bodies such as the Medicines and Healthcare Products Regulatory Agency (MHRA), Human Tissue Authority (HTA) and the Human Fertilisation and Embryology Authority (HFEA), under legislation set by the UK Government?
10. What arrangements will be made for the regulation of professions with a single UK-wide Professional, Statutory Professional, Statutory and Regulatory Body (PSRB) such as medicine, dentistry and pharmacy? Will constitutional change in Scotland impact upon the cross-border movement of students and staff in the regulated professions?

11. How will the Scottish Government transpose the EU Directive on the protection of animals used for scientific purposes and what arrangements will be made for the licensing of animal research in Scotland?
12. How will the Scottish Government continue to assure the quality and parity of provision of educational standards in Scotland?

***Attracting scientific talent, businesses and industry***

13. How will the Scottish Government incentivise the location of global scientific talent, businesses and industry in Scotland?
14. Innovation, knowledge transfer and the commercialisation of research in Scotland benefit from funding and support through UK programmes. How will these activities be supported in the future?

We are pleased for this response to be publicly available. For any queries, please contact Dr Caroline Wallace, Society of Biology - Scotland, 22-26 George Street, Edinburgh EH2 2PQ; [carolinewallace@societyofbiology.org](mailto:carolinewallace@societyofbiology.org)