

15 October 2021

Submission to the independent review of research bureaucracy

1. The Royal Society is the national academy of science for the United Kingdom. Its Fellows include many of the world's most distinguished scientists working across a broad range of disciplines in academia, industry, charities and the public sector. The Society draws on the expertise of the Fellowship to provide independent and authoritative scientific advice to UK, European and international decision makers.
2. The Society welcomes the opportunity to respond to the independent review of research bureaucracy. We support the ambition of the review to, 'reduce research bureaucracy so that only essential elements remain, resulting in a major improvement in the quality of the working lives of individuals and teams conducting research.'¹ Researchers in the UK and beyond spend a significant proportion of their time completing administrative tasks². Some of these tasks and processes have been introduced to improve the scientific enterprise, for example those associated with open science initiatives. However, others have limited value and increased administrative responsibilities can be a distraction and place pressure upon researchers.
3. This response focuses on current bureaucracy within the system. We have not included material relating to proposed future bureaucracy and would urge decision makers to review the existing administrative burden before the introduction of any new processes. Recent proposals for a Foreign Influence Registration Scheme, for example, could significantly hamper scientific collaboration between the UK and other countries. The Society has requested further consultation on this proposed initiative³.
4. The content of this response is relevant to funders, government, higher education institutions and research organisations and publishers. The Society is a funder and publisher of, as well as an advocate for, science. The funder and publisher content in this response will include reference to our own processes and procedures where relevant. We are aware that not all content related to publishing may be in scope of this review.

Main sources of unnecessary bureaucracy that need to be taken into account by the Review

5. The prevalence of short-term funding from Government prevents funders from planning effectively and can lead to the generation of considerable bureaucracy within the system. As schemes are ended or abandoned, often in response to changing political priorities, the work associated is lost. The recreation of comparable schemes in future, often with similar objectives though perhaps differently described, require creation from scratch with all the administration that entails. This can have a knock-on impact on researchers and contribute to precarity in academic careers.
6. Bureaucracy within application processes can have a significant delay on research and discourage certain types of organisations from participating in research calls. This affects the overall quality of submissions and, potentially, awardees and can have a particular impact on private sector participation. The National Audit Office (NAO) report on the management of the Industrial Strategy Challenge Fund⁴ noted that it took 43 weeks for Wave 2 and 72 weeks for Wave 3 to move from the expressions of interest stage to the approval of Wave business cases. The length of these processes may have deterred some businesses, particularly smaller companies, from participating⁵. Given the current focus on the role of innovation in driving long

¹ <https://www.gov.uk/government/publications/review-of-research-bureaucracy/review-of-research-bureaucracy-terms-of-reference>

² <https://ftp.iza.org/dp10080.pdf>

³ <https://royalsociety.org/-/media/policy/Publications/2021/07-22-21-royal-society-submission-to-home-office-consultation-on-state-threats.pdf>

⁴ <https://www.nao.org.uk/report/the-ukris-management-of-the-industrial-strategy-challenge-fund/>

⁵ <https://www.nao.org.uk/wp-content/uploads/2021/02/UK-Research-and-Innovations-management-of-the-Industrial-Strategy-Challenge-Fund-Summary.pdf>

term growth, it is vital that the timescales for funding programmes that support academia-industry collaboration are consistent with the expectations of the private sector.

7. Similar issues have been raised in relation to UKRI's Strength in Places Fund. Decisions made by a panel were held up for months before being made public. Likewise, with responsive mode research grants, significant delays between UKRI panel decisions and all the financial approvals being given can mean up to 18 months pass between grant submission and the time when a Principal Investigator (PI) is able to appoint a Postdoctoral Research Associate (PDRA). For early career researchers this delay can be extremely deleterious to their careers, potentially leading to the loss of tenure. Conversely, the time allowed for PIs to respond to calls of different types can be unhelpfully short.
8. For large grants, with multiple Co-Investigators (CO-Is), excessive detail can be required for each Col. This can cause delay and creates administrative burden that is unlikely to be particularly helpful to those assessing the grant application.
9. The majority of funders, whether funded through government departments or charities, will undertake assurance activities on the organisations that they support to understand whether the funds provided have been managed in line with accepted research management practices as well as individual conditions of award. In most cases, very similar information is requested from funded organisations but in different formats with differing questions. While risk appetites across funders in assessing research management practices vary, there is a clear opportunity to reduce bureaucratic burden within both funded organisations and funders alike by taking a system wide approach.
10. Fellows of the Royal Society repeatedly raised the administration associated with the platform ResearchFish⁶. The need for formal monitoring and reporting is understood. However, it was felt that users were often required to input data that seemed either duplicative or extraneous. Frequently the same data was required by other platforms and systems creating additional bureaucracy. Streamlining the process to create a single and simple point of reporting would remove a significant point of contention.
11. Additional administrative requirements for researchers are sometimes applied at an institutional level for routine activities such as grant applications or the submission process for the Research Excellence Framework. This is largely a response to the pressures and incentives that exist in the system. The additional processes vary by institution and the extent to which individual researchers perceive this as unnecessary and problematic is somewhat dependent on their experience of different institutional approaches and awareness of what is mandatory. It would be beneficial if, as a general principle, institutions were challenged not to overinterpret the duties and responsibilities placed upon them.
12. The publication process, and validation of publications for open access, is a source of considerable bureaucratic burden. Previously the responsibility of the publisher, the workload associated with submission, which often must be repeated after revision, is now frequently pushed onto the researcher. This includes work related to the upload and sharing of data as well as the electronic submission of journal articles. This work supports greater openness and gives greater control to researchers and so creates benefits for the research system. However, it is also challenging in that different journals use different systems and so the processes can be particular to each submission. The Royal Society is one of a set of publishers that have introduced 'format free submission' to try to address this problem. An increase in the uptake of this approach by other publishers would help to reduce bureaucracy.
13. Peer review is a pillar of the research system. In some instances, the process may involve excessive bureaucracy. A given article may go through numerous journal submissions before it is finally accepted which only increases the burden (as each journal carries out its own peer review process). Recently there have been initiatives to address this issue through 'portable peer review' whereby a journal may choose to accept the peer review reports produced by the previous (rejecting) journal, rather than re-reviewing the manuscript afresh. The recent rise in

⁶ <https://researchfish.com/>

the popularity of preprints does promise to reduce the peer review burden (since preprints are easily uploaded to a server – as is – and are not peer reviewed).

14. Similar issues exist with the peer review of grant applications. The more applications are made, the more peer review is required. This is particularly true of small grants which typically have high application numbers and low success rates. For both the applicant and the referees, forms can be unnecessarily complex and repetitive, leading to a loss – not an increase – of clarity. Referees can be expected to fill in numerous closely related boxes which may obscure their actual overall reflections on a proposal. Using numerical scores can lead to anomalies between different referees who work to different schema. Free text can be less constraining and more informative for panels. Likewise, the numerous headings under which applicants need to fit their case means time needs to be spent on peripheral information rather than on allowing time (and word count) on the details of their case for support. Gantt charts, for instance, may be no more than illustrative and yet absorb much time in preparation. In the case of both Innovate UK and Strength in Places Fund applications, concerns have been raised that the overall assessment process appears in practice, through its multiple, individually scored sections, to be simply a spreadsheet-based mechanism on which to make and justify funding decisions.

Specific changes which could bring the biggest reduction in unnecessary bureaucracy

15. As noted above, there appears to be duplication in terms of the reporting requirements placed upon researchers. This is partially a consequence of similar information being required by disconnected platforms and systems. A review of the type of information required, and the mechanisms by which it is captured would be beneficial to identify where harmonisation may be possible, and efficiencies could be achieved. UKRI for instance is working to reduce ‘the number of questions for mandatory reporting for the Researchfish 2020 submission period and actively reviewing our approach to outcomes monitoring with a view to ensuring it is fit for purpose and minimally demanding on our awardees, for example via use of ORCID/integration with other datasets’⁷.
16. ORCID iD⁸ is a digital ‘passport’ containing all the key information about a researcher (name, education, career history, publications, grants etc) in one place. This is kept under a single unique identifier for that researcher and the researcher can then simply provide their ORCID iD into any system and it will act as a single sign on and pre-populate all the relevant information to prevent them having to re-key it all into each system they use. The ORCID iD can even be dynamically updated by other systems each time a researcher publishes a new article, or wins a new grant, which saves them having to keep their ORCID iD updated themselves. The Royal Society was the first publisher globally to make ORCID iDs mandatory for submitting to journals and most other publishers have since followed this example.
17. A focus on proportionality, by funders, government, higher education institutions and research organisations, would be beneficial in encouraging an overall reduction in bureaucracy. For example, overly bureaucratic application processes for relatively modest grants can have a narrowing effect on participation that preference those who are either unable to secure funds from elsewhere or those that are able to absorb the associated costs. As illustrated above in the example of the ISCF, this can negatively limit participation particularly by private sector organisations as well as higher education institutions and research organisations.

Changes which would make the greatest difference to the efficiency and effectiveness of the application process and post-award assurance processes

18. UKRI is pursuing plans to reduce its own bureaucracy that draw on lessons learnt during the pandemic. This includes the implementation of an adapted version of the Resume for Researchers⁹. We welcome this work. While the pandemic has been a time of particular stress for many academic researchers, accelerated processes have been implemented in some research areas with considerable success and so offer lessons for the system as a whole.

⁷ <https://www.ukri.org/news/ukri-reducing-unnecessary-bureaucracy/>

⁸ <https://orcid.org/>

⁹⁹ <https://royalsociety.org/topics-policy/projects/research-culture/tools-for-support/resume-for-researchers/>

Best practice in removing or preventing unnecessary research bureaucracy

19. The Society is currently completing a report on best practice in peer review and will share this with the review team once published. The paragraph below is taken from the draft report.
 - a. Peer review is one of the pillars of any advanced research system, and we would argue that it is the most fundamental function served by any research funder. Understanding what constitutes good peer review and learning from the very best UK and international practice, will be critical to the future health of UK science. It is deeply unfortunate that peer review has sometimes been regarded as an administrative overhead in research funding. An immense amount of time goes into the preparation of proposals: our objective with many of the recommendations is also to ensure that any wasted effort by applicants is kept to a minimum, and that their work gets the quality of scrutiny it deserves. This was a recurring theme in our work: that researchers felt some funding agencies did not recognise the time and effort proposals take, time that is not being spent on delivering research. The report recommends, 'an administrative framework that supports excellent decision-making. Quality in decision-making requires a constant effort to provide the most effective and efficient possible support, allowing that reviewers and panellists to focus on their core task.' For instance, this requires care in the design of paperwork to maximise clarity and relevance in funding applications. Consideration is needed to make the most of participant's time. Where possible, reviewers' efforts should be focused on fewer and larger grants to avoid incrementalism. At the same time we need to simplify processes for applicants so our best researchers to spend their time pursuing knowledge, not grants.¹⁰

¹⁰ Grant Peer Review: Best Practice (Forthcoming Royal Society report)