

## Overall approach

**Q1:** *Any comments on maintaining overall continuity of approach with REF 2014?*

This response represents the position of the Academy of Medical Sciences and has been formulated through consultation with the Academy's Fellows and early-career grant holders. The positions adopted in this response represent the consensus of those consulted not the views of individuals. During the development of this response the Academy has worked closely with the other national Academies (the British Academy, the Royal Academy of Engineering and the Royal Society), learned societies, funding bodies and with HEFCE. Nevertheless, this response does not attempt to represent the position of any of the other organisations consulted through its development.

The Academy of Medical Sciences believes that the REF has driven several positive developments within academia, including the rewarding of excellence, recognition of societal impact, and greater acknowledgement of diversity within the modern workforce. The Academy considers that continuity of approach with REF 2014 will help institutions to build on these drivers. However, the process should continue to evolve to eliminate perverse incentives for detrimental behaviour, and to coordinate positive drivers.

Future Research Excellence Frameworks, commencing with REF 2021, should incentivise and reward positive research behaviours and environments. This should include rewarding and incentivising responsible research practices; interdisciplinary research and collaboration with partners outside of universities, including the NHS.

The Academy supports proposals to break the link between researchers and outputs. We support the submission of all research-active staff and proposals to disallow the portability of outputs between institutions. However, the Academy is conscious that these proposals must be implemented in way which does not cause detriment to the career progression of research staff, nor disincentivise mobility across or between sectors.

## Unit of Assessment structure

**Q2:** *Any comments about the Unit of Assessment structure in REF 2021?*

The Academy feels that the structure of the Unit of Assessments and larger sub panels (compared to previous Research Assessment Exercises) worked well and levelled the playing field between individual specialties.

## Expert panels

**Q3a:** *Do you agree that the submissions guidance and panel criteria should be developed simultaneously?*

The Academy recognises the incentive to develop guidance and panel criteria simultaneously, but is sceptical that this will be feasible. Even with lessons learnt during the development of assessment criteria for REF 2014, simultaneous development of the

submission guidance and assessment criteria by Main panel and subpanel chairs may result in unforeseen gaps in the criteria.

**Q3b:** *Do you support the later appointment of sub-panel members, near to the start of the assessment year?*

Recruitment of sub-panel members near to the start of the assessment year should be permitted in order to ensure that expert panels have sufficient expertise. However late recruitment of sub-panel members should be avoided wherever possible as it necessitates the reallocation of duties of academic staff. This can be avoided by utilising experience from REF 2014. For example, based on this experience it is clear that Main Panel A will require the inclusion of expertise in the physical sciences in the sub-panel membership of UoAs.

**Q4:** *Do you agree with the proposed measures (outlined in paragraph 35) for improving representativeness on the panels?*

The Academy feels that proposed changes to expert panel selection outlined in paragraph 35 constitute an improvement. However, the Academy is concerned that they do not constitute the “fundamental changes” which were called for by the Equality and Diversity Advisory Panel’s review equality and diversity in REF 2014<sup>1</sup>.

Additional steps should be considered to ensure that the nomination process promotes Equality and Diversity (E&D) and representativeness on the panels. The Academy recommends that the Equality Challenges Unit (ECU)<sup>2</sup> be consulted in designing a nomination process which promotes a representative range of nominees.

**Q5a:** *Based on the options described in paragraphs 36-38, what approach do you think should be taken to nominating panel members?*

The Academy does not support open nominations for sub-panel membership as this would involve an unmanageable increase in workload. The Academy considers that the use of nominating bodies remains the most appropriate means of sub-panel selection. The ECU should be consulted to ensure that the nominations process to address concerns regarding representativeness of subpanels.

An additional step to support the interdisciplinary nature of sub panel membership could be the inclusion of questions within the nomination form about interdisciplinary experience of subpanel nominees.

**Q5b:** *Do you agree with the proposal to require nominating bodies to provide equality and diversity information?*

The Academy supports proposals to require nominating bodies to provide equality and diversity information and considers that HEFCE should work with the Equality Challenge Unit to develop a nomination procedure which will support diversity on sub-panels (See answer to question 4).

**Q6:** *Any additions or amendments to the list of nominating bodies?*

Additional emphasis should be given to recruitment of international panel members,

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<sup>1</sup> <http://www.ref.ac.uk/media/ref/content/equal/EDAP%20final%20report.pdf>

<sup>2</sup> <http://www.ecu.ac.uk/>

which would strengthen REF 2021. This could be achieved by considering nominations from additional, internationally recognised organisations, such as national Academies in other countries.

The further inclusion of international organisations in the nomination procedure of panel members may have the additional benefit of promoting UK research globally.

## **Staff**

**Q7:** *Any comments on the proposal to use HESA cost centres to map research-active staff to UOAs and are there any alternative approaches?*

The mapping of staff to UoAs was a considerable source of “gaming” by HEIs in REF2014. Attempts to address this problem are welcomed, however the Academy has significant concerns that HESA cost centre data are not suitable for mapping staff as they do not translate cleanly onto UoAs.

Furthermore the HESA cost centre approach fails to recognise interdisciplinary research and use of these categories may have unintended negative consequences for the inclusion of interdisciplinary research.

**Q8:** *Any comments on the proposed definition of ‘research-active’ staff?*

The Academy supports proposals to submit all research-active staff. Staff selection during REF2014 created significant administrative burden for institutions and had a negative impact on the morale and career prospects of researchers who were not submitted to the REF. Submission of all research-active staff should help to resolve this issue and offer appropriate recognition of all research-active staff within an HEI.

The Academy is concerned that the definition of “research-active” outlined in the consultation is not sufficiently robust. Including a “measure of independence” in the definition will be important, but this may represent an additional burden for the submitting institution and may be a potential source of manipulation. Defining “independence” must be done with care and recognition of discipline-specific considerations. Receipt of independent grant funding will not be appropriate in some disciplines or in scenarios where researchers receive core funding from an HEI.

The AMS is also concerned that institutions might be incentivised to manipulate job titles of some staff to cultivate an optimal selection of staff. Therefore the definition of research-active should reduce opportunities for such manipulation.

**Q9:** *In relation to decoupling staff and outputs, what comments do you have on:*

- a. *Requiring an average of two outputs per full-time equivalent staff returned?*
- b. *The maximum number of outputs for each staff member?*
- c. *Setting a minimum requirement of one for each staff member?*

The decoupling of staff and outputs has the potential to alleviate the burden of staff selection and to focus assessment at the level of the institution or department rather than individual. Therefore the Academy supports the decoupling of researchers from outputs.

The inclusion of all research-active staff should not lead to significant increases in the

number of outputs which must be assessed. Therefore, the Academy supports an average of two outputs per full-time equivalent (FTE).

Implementation of the proposal to submit all research active staff to the REF must not disincentivise recruitment of staff in the build up to the REF, or place barriers on the mobility of staff between institutions or sectors.

The proposals to allow some researchers to submit more or less outputs than the average should help to ensure that, for example, early-career researchers; researchers who have taken career breaks and those who have moved from different sectors are not subject to unreasonable expectations.

If outputs are to be non-portable (see question 10), a minimum of one output may disincentivise recruitment in the run up to a REF as researchers would not have the time to generate new outputs in before the submission date. This may have particularly negative impact on inter-sector mobility and early-career researchers in their first independent position as it may take longer for these staff to generate returnable outputs compared to more established researchers.

Conversely, setting a minimum of zero would not require institutions to submit outputs from all staff. Staff selected to submit zero outputs may be subject to the same negative consequences as researchers who were not submitted at all to REF2014 (see question 8). This may undermine the positive impact of including all research-active staff and remove the incentive for institutions to provide the necessary support for all researchers to generate at least one output to be submitted in the REF. By extension, this may have a negative impact on the resources which institutions choose to devote to supporting all research-active staff.

In this context a minimum of both zero and one have significant drawbacks. Therefore the Academy suggests that a compromise be found where a minimum of one output must be generated by each member of research-active staff, but with exemptions for those who have recently been recruited or have other mitigating circumstances (e.g. returning from long-term absence, career break or moving sector).

**Q10:** *Any comments relating to portability of outputs, specifically:*

- a. *Is acceptance for publication a suitable marker to identify outputs that an institution can submit, and how would this apply across different output types?*
- b. *What challenges could institutions face in verifying output eligibility?*
- c. *Would non-portability negatively impact certain groups, could this be mitigated?*
- d. *Any comments on sharing outputs proportionally across institutions?*

The portability of outputs led to claims of 'tactical hiring' of high-profile staff with high-scoring outputs during REF2014. The Academy views this as one of the major negative effects of the previous assessment.

The Academy supports proposals to decouple staff and outputs to address the issue described above. Non-portability of outputs plays an important role in decoupling staff and outputs and will help to focus the REF at the level of the institution, not the individual. Consequently the Academy supports non-portability of outputs.

The Academy is aware of unease amongst some sectors of the research community

about the impact of non-portability on certain career stages, particularly on recruitment of early-career researchers and also on those recruited close to the end of a REF cycle. Therefore the Academy recommends that appropriate exemptions must apply to the number of outputs to be submitted by staff with mitigating circumstances (see question 9).

In Main Panel A, publication date will often be the most appropriate marker to identify where an output was generated. However, in instances where a researcher has moved between institutions prior to publication there should be a mechanism to allow both institutions to submit an output, provided that appropriate justification can be provided. This is particularly common for ECRs during their first independent position, where publications are often accepted after the researcher has moved to a new post.

The Academy does not consider that non-portability would provide a significant incentive for researchers to delay publication of papers whilst they were looking for a new position. Hiring decisions by institutions rarely rely on a single paper, therefore the potential negative impact of delaying publication would be likely to outweigh the incentive.

**Q11:** *Do you support a mandatory requirement for the Open Researcher and Contributor ID to be used as the staff identifier in REF 2021?*

The Academy supports the use of digital identifiers such as ORCID, and this was a key recommendation of the Academy's recent Team Science report<sup>3</sup>.

**Q12:** *Any comments on the proposed removal of Category C as a category of eligible staff?*

Collaboration between academics and clinicians can help to promote research within the NHS and to deliver important public health benefits to patients. The REF must encourage this kind of collaboration.

The proposed removal of category C staff is a major concern for the AMS for two reasons. The first is that this proposal could have negative impacts on the ability of the REF to capture the outputs of translational and public health research. This is relevant for research conducted by researchers employed by the NHS, particularly when outputs are not produced as a collaboration with Category A staff and yet rely on infrastructure provided by an HEI. Removal of Category C staff would result in the failure of the REF to capture work of this nature.

Secondly, the Academy feels that inclusion of Category C staff in the REF acts to reinforce the value which institutions place on collaboration with NHS staff. Removal of Category C would send out the wrong message about the importance of these collaborations and of research in the NHS. The REF should promote collaboration between HEI staff and those working outside of HEIs, including the NHS (see question 15). Removal of Category C staff from the REF would risk undermining the incentive for institutions to pursue and encourage these collaborations.

**Q13:** *Any comments on the definition of research assistants?*

Provision of a clear definition will be required, with particular emphasis on how the

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<sup>3</sup> <https://acmedsci.ac.uk/policy/policy-projects/team-science>

“independence” of researchers is defined (see question 8).

**Q14:** *Any comments on the proposal for staff on fractional contracts, is a minimum of 0.2 FTE appropriate?*

Capturing information on individual staff circumstances in REF2014 improved the data available on the profile of the modern research workforce and the important contribution of staff on fractional contracts to UoAs. This raised the profile of ECRs and part-time workers, and provided an evidence base to inform strategic decision-making around career support and structures. A minimum of 0.2 is appropriate.

### **Collaboration**

**Q15:** *Any comments on better supporting collaboration between academia and non-HE organisations in REF 2021?*

Removal of Category C staff would be likely to negatively impact collaboration between academia and non-HE organisations. The REF must reward these collaborations (see answer to question 12).

### **Outputs**

**Q16:** *Do you agree with allowing the submission of a reserve output in cases where the publication of the preferred output will postdate the submission deadline?*

The Academy has no objection to this proposal.

**Q17:** *Any comments on the assessment of interdisciplinary research in REF 2021?*

The Academy welcomes proposals to ensure that REF2021 is better able to capture and promote inter-disciplinary, inter-institutional and ‘Team Science’ endeavours. It is crucial that incentives exist for undertaking this research activity, and the REF process is an important conduit to foster interdisciplinarity.

UoA assessment panels must be equipped to capture and assess interdisciplinary research and interdisciplinary champions could be an appropriate way to promote this. The nomination procedure for sub-panel membership could also be amended to include a section on the interdisciplinary experience of nominees (see answer to question 5a).

The Academy feels that institutions must not be disincentivised to submit interdisciplinary work and guidance should make it clear that interdisciplinary work will be assessed equally.

**Q18:** *Do you agree with using quantitative data to inform the assessment of outputs, where appropriate? Which data could be provided to the panels?*

The Academy is a supporter of the San Francisco Declaration of Research Assessment and recognises the negative impacts of the use of certain metrics. However, the Academy is aware that during REF 2014 there were instances where use of metrics relating to citation supported the ability of panels to assess outputs, particularly where panel members were in disagreement. Quantitative data should be allowed, but caution must be applied to use of metrics as these can lead to unintended negative consequences.

## **Impact**

**Q19:** *Do you agree with maintaining consistency where possible with the REF 2014 impact assessment process?*

Inclusion of impact in REF 2014 was one of the most positive changes associated with the last assessment. Submission of impact case studies adds an additional layer of assessment relating to uptake and implementation of research conducted in an institution. The Academy supports consistency with REF 2014 where possible.

Impact also provides an invaluable resource for mining the benefit derived from publicly funded research. The availability of this information can be used to demonstrate the value of research conducted in universities to a wide range of audiences, from local communities to decision-makers. REF2021 should explore opportunities for a searchable data source for calculating return-on-investment figures and other quantitative analysis of case study data.

**Q20:** *Any comments on the recommendation to broaden and deepen the definition of impact?*

The Academy supports proposals to broaden and deepen the definition of impact. The definition of impact must be able to capture healthcare impacts and recognise research that benefits patients.

**Q21:** *Do you agree with the proposal for the funding bodies and Research Councils UK to align their definitions of academic and wider impact?*

There would be benefit in aligning the definitions of academic and wider impact, however it must be noted that societal and policy impacts are nuanced and any definition should recognise this. Care should be taken not to encourage a culture of over-stating impacts. Outside of the REF this type of behaviour (e.g. over-hyping in press releases) can reduce the trustworthiness of research and, where the research being presented is about the benefits and harms of medicine, can be harmful to health.

**Q22:** *Any comments on the criteria of reach and significance?*

It is challenging to capture the journey from basic research to impact and REF 2014 was only able to judge the reach and significance of the final impact. Developing a means of assessing the intervening stages would create greater connectivity between original research and eventual output.

**Q23:** *Any comments on having further guidance for public engagement impacts, what would be helpful?*

In REF 2014 this proved to be a particularly challenging area of impact in Main Panel A. Qualifying criteria is required for what constitutes successful public engagement. This might include demonstration of behavioural change, not simply dissemination of research.

**Q24:** *Do you agree that impacts should remain eligible for submission by the institution or institutions in which the associated research has been conducted?*

Yes, the approach adopted in REF 2014 remains the most appropriate.

**Q25:** *Do you agree that the approach to supporting and enabling impact should be captured as an explicit section of the environment element of the assessment?*

Yes, this will help to promote an environment which supports and values the realisation of research impacts.

**Q26:** *Any comments on the suggested approaches to determining the required number of case studies?*

The Academy agrees that number of case studies should not exceed the number submitted in REF 2014.

**Q27:** *Do you agree with the proposal to include mandatory fields (paragraph 96) in the impact case study template to support the assessment and audit process better?*

Yes, the inclusion of mandatory fields will help to connect the underpinning research to the processes eventually leading to impact.

**Q29:** *Any comments on the inclusion of examples of impact arising from research activity, as well as from specific research outputs?*

The Academy supports the proposal that case studies could be linked to a body of work rather than a particular output. In some cases, a body of work may offer a sounder basis for describing the underpinning research that results in an impact. Nevertheless this should not preclude the option for an individual research output to be linked with an impact case study.

**Q31:** *Any views on the threshold criterion for underpinning research, research activity or a body of work being based on standards of rigour? How could rigour be assessed?*

The Academy did not consider that the 2\* requirement was problematic in Main Panel A during REF 2014. Nevertheless, guidance on the detail required for the panel to be confident that the underpinning research was of international quality would be helpful.

**Q32:** *Evaluation of REF 2014 found that provision of impact evidence was challenging for HEIs and panels. Any comments on:*

- a. *The suggestion to provide audit evidence to the panels?*
- b. *Developing guidelines for the use and standard of quantitative data as evidence for impact?*
- c. *The wider evidencing impacts in REF 2021?*

Evidencing of impact proved particularly problematic in the assessment of public engagement impacts in Main Panel A (see question 23). A wider evidencing of impact to capture, for example behaviour change, would be appropriate for REF 2021.

**Q33:** *Any comments on the issues and rules around submitting examples of impact in REF 2021 that were returned in REF 2014?*

In cases where ongoing impacts are being derived from research it will be appropriate for impact case studies submitted in REF 2014 to be submitted to again in REF 2021. Guidance will be required on situations in which this is permissible and the context in which impact case studies can be "reused".



## Environment

**Q34a:** *Do you agree with proposals to improve the structure of the environment template and introduce more quantitative data?*

The Academy believes that the responsible research practices embedded within an institution are a marker of the excellence of that research environment. The REF should therefore assess and act as a driver for a good research environment, and good research behaviours, both of which are essential for long-term success<sup>4</sup>.

At present, there is insufficient consideration of research reproducibility and responsible research practice within the environment criteria. Therefore the Academy recommends that environment statements at both the institutional-level and submission level should assess the institutional support for responsible research practices within that UoA or institution.

Examples of research practices that should be considered in the REF environment statement should include, but not be limited to: improving reproducibility and experimental design; promotion of the publication of negative results; appropriate use of animals in research and increased adoption of open access with respect to both publications and data.

Where appropriate guidelines and codes of practice exist (e.g. the ARRIVE guidelines<sup>5</sup> on the reporting of the use of animals in research, and the Concordat to support research integrity<sup>6</sup>), HEIs should be encouraged to provide evidence of their implementation to demonstrate how responsible research practices are embedded in the research culture of that institution. Adherence to specific guidelines should not be mandated by the REF, but appropriate use of existing guidelines may help to reduce the burden on institutions in demonstrating sound and sustainable research practices.

**Q35:** *Any comment on how the environment element can give more recognition to universities' collaboration beyond higher education?*

The REF should seek to capture how research conducted in HEIs interfaces with their local communities; the charity sector; the NHS and international bodies. This should include the ability for universities to demonstrate collaboration with international partners.

**Q37:** *Any comments on ways to incentivise units to share and manage their research data more effectively?*

The Academy considers sharing and management of research data to be an important part of research culture which should be rewarded in the environment section of the REF. See answer to question 34a.

## Institutional-level assessment

**Q38:** *Any views on the introduction of institutional-level assessment of impact and environment?*

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<sup>4</sup> <https://acmedsci.ac.uk/file-download/38189-56531416e2949.pdf>

<sup>5</sup> <https://www.nc3rs.org.uk/sites/default/files/documents/Guidelines/NC3Rs%20ARRIVE%20Guidelines%202013.pdf>

<sup>6</sup> <http://www.universitiesuk.ac.uk/policy-and-analysis/reports/Documents/2012/the-concordat-to-support-research-integrity.pdf>

The Academy welcomes the inclusion of institutional-level assessment of impact and environment. Over 80% of impact case studies in REF 2014 were linked to underpinning research that was multidisciplinary. Institutional-level impact case studies should further help to capture the importance of interdisciplinary work.

Clarity will be required over what institutional-level assessments will look like and how they will be assessed.

### **Outcomes and weighting**

**Q41:** *Given the proposal that the weighting for outputs remain at 65%, do you agree that the overall weighting for impact should remain at 20%?*

The Academy feels that the environment statement can be a driver for a wide variety of good behaviours. We think that the proposed weighting of 15% is sufficient to incentivise this, but should not be reduced.

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