[Consultation on the second REF](#)

Response from the British Pharmacological Society submitted 16 March 2017

The British Pharmacological Society (BPS) is the primary UK learned society concerned with research into drugs and the way they work. The Society has around 4,000 members working in academia, industry, regulatory agencies and the health services, and many are medically qualified. The Society covers the whole spectrum of pharmacology, including laboratory, clinical, and toxicological aspects. Pharmacology is a key knowledge and skills base for developments in the pharmaceutical and biotech industries, and is therefore fundamental to a thriving UK industry and R&D. The Society publishes three scientific journals: the British Journal of Pharmacology, the British Journal of Clinical Pharmacology, and Pharmacology Research and Perspectives.

Key points:

We note the challenge of using REF both as an assessment tool and as a data source to examine UK research and impact activity:

- o We offer suggestions for standardisation, data collection and discipline analysis based on our experience of analysing REF impact case studies
- o We support the move to decouple submissions from individuals, believing that this has many benefits including greater support for collaboration and interrogation of research activity at an institutional level
- o We would be happy to discuss our research project in more detail with HEFCE

We had concerns about the visibility of disciplines like pharmacology in the REF2014 submission and assessment process:

- o We recommend that UoAs be used as an administrative tool only
- o We recommend that authors should nominate discipline tags for their output/impact submissions to better-represent interdisciplinarity and allow a more granular look at the impact/involvement of individual disciplines. Adding discipline tags might reduce the need for multiple submissions to UoAs, or the need to publish sub-profiles for disciplines as is proposed in the consultation.
- o We would strongly support pharmacology as a standalone discipline tag.

We are concerned that portability of outputs led to game-playing and detrimental effects on staff morale in REF2014:

- o We recommend that outputs should not be portable with the exception of researchers who were not eligible to be returned in REF2014: e.g. early career researchers and those recruited from outside the UK

We note the usefulness of the Environment statement in both capturing activity and driving behaviour:

- o We recommend that the Environment statement should include mandatory fields for key institutional behaviours that REF is aiming to support or drive (e.g. compliance with the open access policy; compliance with agreed high standards on the use of animals in research; support for interdisciplinarity, collaboration and impact; equality and diversity)
- o HEIs should be asked to provide statements detailing institutional strategies and tactics in support of such outcomes (e.g. for standards on the use of animals this could include a request for information on what HEIs are doing to ensure support for and progress in the 3Rs and on openness)
- o Requiring such information would help to drive behaviour, but also collate a pool of data for later assessment of 'what works'.

We fully support all measures to increase transparency and openness of panel nomination procedures

We believe that pharmacologists would add value to the sub-panels due to their quantitative and translational expertise

Responses to consultation questions

Question		Comments
Overall approach		
1	Do you have any comments on the proposal to maintain an overall continuity of approach with REF 2014, as outlined in paragraphs 10 and 23?	We agree that continuity of the overall approach of REF 2014 should be maintained. This is not least because the REF has only run once in its current form: any substantial changes would increase both uncertainty and the burden on submitting institutions. The primary purpose of the REF exercise is to make decisions about QR funding. However, the submissions are also a rich source of data that, if collected in the right way, have the potential to inform decisions by researchers, their collaborators and strategic decision-makers e.g. in government, institutions and funders. This Society has considered our responses to the questions in this consultation with both of these 'uses' of the REF in mind. We agree that continuity with REF2014 is important for the reasons outlined in paragraph 10, but also to enable conclusions to be drawn from a research perspective.
Unit of Assessment structure		
2	What comments do you have about the Unit of Assessment structure in REF 2021?	The Society has previously highlighted concerns that panels/sub-panels did not seem to have sufficient expertise to assess submissions from the discipline of pharmacology. Pharmacology is a broad discipline that could feasibly be returned against nearly all of Main Panel A and several sub-panels in B and C. Merging of disciplines into 'Life Sciences' or 'Biomedical Sciences' at university level exceeded the optimal workable size of panels: further

amalgamation could lead to a loss of consistency in panel workings. These mergers may have left REF panels without sufficient discipline-specific expertise, and a reliance on the use of impact factors and citation numbers as proxy measures of quality. This, combined with a lack of reference to pharmacology in the UoA, resulted in our feeling that pharmacology suffered from low visibility in the REF.

We are also conducting a research project to evaluate impact case studies in drug discovery (see Q28). This problem is illustrated by our analysis: the UoA structure, as used in REF2014, does not facilitate comprehensive identification of pharmacology & pharmaceutical sciences within case studies. Subsequent tagging of fields of research in case studies by KCL/Digital Science significantly underestimated pharmacology & pharmaceutical sciences involvement: in the context of drug discovery & development, we found 176 case studies employed pharmacology, but only 50 of these were so tagged. We would be happy to discuss this project in more detail if that would be helpful.

We recommend that authors are asked to self-identify discipline key words (perhaps up to 3, but this would need further consideration) that contributed to each of their outputs for the purposes of subsequent tagging and analysis. Allowing authors to tag their outputs with discipline identifiers would also enable a greater depth of granularity in the final assessment of research quality, enabling in-depth analysis of research quality, discipline contributions and interdisciplinarity.

Such tags could be used for both outputs and impact case studies. For impact case studies, it would be worth considering whether an additional set of tags for impact would be helpful. In our analysis of impact case studies for drug discovery and development, we needed to use a systematic literature review methodology to extract relevant case studies based on a series of search strings. If broad thematic impact tags (e.g. drug discovery and development) were available this would have reduced the workload considerably. We are aware that flexibility is needed here to keep the breadth of impact scope. The optional use of broad thematic tags combined with free text description may address this issue.

We agree with the later suggestion to use HESA cost codes, but recommend that these be used only to identify the sub-panel that is best qualified to perform the assessment. Using the UoA as an administrative sign-post only should discourage 'gaming' of submissions. Finally, we agree that sub-panels should be encouraged to co-opt additional members (or refer submissions to another sub-panel) if a particular area of expertise is found to be lacking when judged against the declaration of disciplines.

Expert panels

3a	Do you agree that the submissions guidance and panel criteria should be developed simultaneously?	Yes, simultaneous development of panel submission guidance and panel criteria ensures consistency. We also recommend bringing sub-panels into this process.
3b	Do you support the later appointment of sub-panel members, near to the start of the assessment year?	No. In REF2014 there were problems with later appointments being inducted to the same level of expertise as original appointments. This also applied to output assessors who were not trained to the same level as sub-panel members.
4	Do you agree with the proposed measures outlined at paragraph 35 for improving representativeness on the panels?	We agree with the proposals. We further suggest that the demographic information be published along with the results of the REF.
5a	Question 5a: Based on the options described at paragraphs 36 to 38, what approach do you think should be taken to nominating panel members?	We strongly recommend that open application and assessment processes are developed in line with good practice in equality and diversity: e.g. form construction, consideration of whether blinding is appropriate. We favour a transparent and inclusive approach to panel nominations, accepting that this has cost and time implications. We would favour maintaining existing exclusions for HEIs, or constituents of HEIs, on the basis of conflict of interest. However, certain mission groups could be added, where the mission relates to quality and transparency of science. Examples would include: Sense about Science or groups advocating Open Science or promotion and development of the 3Rs and animal welfare in laboratory animal science. For example, a researcher who is a member of Animal Welfare and Ethical Review Bodies (AWERBs) would be well-placed to do this. This is because they are both embedded in research activity and are aware of the considerations from a 3Rs and a research perspective. Experts in public engagement would also be valuable considering the issues highlighted in this consultation regarding assessment of impact. Learned Societies like the British Pharmacological Society could also play a bigger role. These organisations have direct contact with experts through their membership, and could be a

		nodal point for widening the pool of nominees through a 'bottom up' system. Guidance to ensure the inclusivity of such a process would be important.
5b	Do you agree with the proposal to require nominating bodies to provide equality and diversity information?	We understand paragraph 37 to mean that nominating organisations should be held to account regarding their internal processes for ensuring inclusive nominations. We agree with this principle, and would suggest the provision of a short set of guidelines on good practice in nomination processes. These would advise on, for example, a process that brings together a pool of potential nominees from the membership (in the case of an organisation like this Society) and then filters them appropriately. We recognise that this imposes an administrative burden, but the alternative leaves the nominations process open to organisations only nominating the 'old guard'.
6	Please comment on any additions or amendments to the list of nominating bodies.	We believe that those skilled in research and research practice with broader sector experience should be involved. However, engagement with research is key rather than inclusion of lobby groups. For example, researchers specialising in public engagement and specialist sector groups e.g. Association of the British Pharmaceutical Industry (ABPI), National Centre for 3Rs (NC3Rs)
Staff		
7	Do you have any comments on the proposal to use HESA cost centres to map research-active staff to UOAs and are there any alternative approaches that should be considered?	We agree with this suggestion, in combination with an approach that allows researchers to nominate their own discipline key words. Mapping of staff to cost centres which map to the UoAs is essential to ensure rigour in staff definitions.
8	What comments do you have on the proposed definition of 'research-active' staff?	We are concerned that the definition of "research active staff" needs to be sufficiently tight to include principal investigators who are independent postdoctoral researchers, but not research assistants supervised on a grant held by academic staff, In REF2014 HEIs spent a lot of time attempting to define early-career researchers and the definition of "independence" was not sufficiently robust. We are concerned that HEIs might embark on game-playing by interfering with contracts of postdoctoral staff or early career researchers to maximise their REF submissions. Nonetheless, the Society believes that it would be useful for all "independent" early career researchers to be returned in the REF as this would incentivise the implementation and support of career development opportunities. To this end, we propose that the definition of "research active staff" has an "independence" tag that relates exclusively

			to the nature of their (personal) research funding at a point sufficiently in advance of the REF census date. In addition, we believe there will continue to be some game-playing by HEIs in terms of moving staff onto teaching/administrative contracts. We recommend clear guidance on how the REF interacts with Teaching Excellence Framework.
9		With regard to the issues raised in relation to decoupling staff and outputs, what comments do you have on: a. the proposal to require an average of two outputs per full-time equivalent staff member returned? b. the maximum number of outputs for each staff member? c. setting a minimum requirement of one for each staff member?	The proposal of an average of two outputs per full-time FTE (if all research-active staff are submitted) would lead to an increase in the total number of outputs assessed by panels. Based on Stern's numbers the parity position is 1.6 outputs per FTE. Outputs from 1-6 per FTE seems reasonable, but still may be internally divisive to HEIs and could have career implications. If there is no minimum number of outputs for staff members, and also a fairly generous maximum number, it will be possible to avoid submitting any outputs for a majority of the staff. This could mean that the overall assessment will then not represent the true level of research achievement; which is what the Stern proposal for inclusivity was intended to avoid. Setting a minimum of 1 output per FTE should mitigate against this and incentivise support for early career researchers. The large upper maximum is also likely to support interdisciplinary collaboration because productive research groups will not have to choose between research papers. However, we strongly support association of outputs with named individuals. In a decoupled process where all individuals are returned, linking individuals to submissions support a practical selection method but won't disadvantage interdisciplinary outputs (which could happen if there is a limit on the total number of co-authored outputs from an individual).
10		What are your comments on the issues described in relation 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?	In relation to portability of outputs there will inevitably be grey areas in relation to eligibility and we feel that as simple a model as possible for verification/eligibility of outputs should be adopted. The Society recommends that outputs should not be portable with the exception of researchers who were not eligible to be returned in REF2014. In this instance, we recommend that such researchers (most of whom will be early career researchers, but could also include people who have moved from industry) are permitted to submit outputs from previous institutions. The same exemption could also be made for staff recruited from outside of the UK and not previously returned to REF2014 since this would encourage recruitment of new high quality researchers to the UK.

	b. what challenges would your institution face in verifying the eligibility of outputs? c. would non-portability have a negative impact on certain groups and how might this be mitigated? d. what comments do you have on sharing outputs proportionally across institutions?	
11	Do you support the introduction of a mandatory requirement for the Open Researcher and Contributor ID to be used as the staff identifier, in the event that information about individual staff members continues to be collected in REF 2021?	Yes.
12	What comments do you have on the proposal to remove Category C as a category of eligible staff?	We do not agree with the removal of Category C. Although this is a small group, they are often NHS staff and we are concerned about the implications for clinical research collaborations.
13	What comments do you have on the definition of research assistants?	Please see our response to Q8
14	What comments do you have on the proposal for staff on fractional contracts, and is a minimum of 0.2 FTE appropriate?	Our previous comments on portability are relevant here. If a 0.2FTE member of staff has a >0.2FTE appointment elsewhere, they should be returned at that institution. If the 0.2FTE is held at one institution we support 0.2FTE as a minimum. However, even if someone holds 0.2FTE we recommend that there should be a hiring threshold of at least one year before the census date and with a tenure greater than a year.
Collaboration		

15	What are your comments on better supporting collaboration between academia and organisations beyond higher education in REF 2021?	We recommend a mechanism to report collaborative activities e.g. authorship of outputs, collaborative activity in impact case studies. HEIs should be encouraged to report interventions or mechanisms that support collaborative activities in the environment section. Please see our response to Q39 for more details. For example, strategic research collaborations and doctoral training schemes that may underpin future outputs. This would help highlight collaborations that have already come to fruition and where HEIs are laying the groundwork for the future. HEIs could be asked to describe: 1. How faculty recruitment and management policies are specifically designed to encourage channels of collaboration 2. What HEI infrastructures are in place to encourage collaboration at city/regional, sectoral, national and supranational levels (including IP management); From our analysis of impact case studies, such channels could include: recruitment from non-academic organisations, research active faculty leaving to take up non-academic roles, academic hybrids (simultaneous academic and non-academic roles), consultancy, advisory roles, contract or collaborative research projects, temporary secondments to and from industry, policy or third sector organisations, student placements, joint working groups, research consortia, entrepreneurship and social entrepreneurship, outreach programmes. It may be helpful to list such channels as examples to guide submissions. These data would be useful in terms of sharing best practice between HEIs and for development of industrial and innovation policy.
Outputs		
16	Do you agree with the proposal to allow the submission of a reserve output in cases where the publication of the preferred output will postdate the submission deadline?	We do not support reserve outputs and would favour keeping the rules simple.

17	What are your comments on the assessment of interdisciplinary research in REF 2021?	We have previously suggested that authors should have the capacity to 'self-identify' the disciplines involved. Tagging outputs/impact case studies in this way would allow panels to determine whether cross-panel interrogation is necessary. We support the appointment of interdisciplinary 'champion' who could liaise across panels for case studies tagged in this way.
18	Do you agree with the proposal for using quantitative data to inform the assessment of outputs, where considered appropriate for the discipline? If you agree, have you any suggestions for data that could be provided to the panels at output and aggregate level?	Consistent and responsible use of metrics at the output level should be included to inform the assessment only, not as a means of making the assessment.
Impact		
19	Do you agree with the proposal to maintain consistency where possible with the REF 2014 impact assessment process?	Yes. This will be especially important when it comes to comparing impact in REF2014 with impact in REF2021.
20	What comments do you have on the recommendation to broaden and deepen the definition of impact?	We believe that the definition was broadly appropriate within the biomedical sciences but we would support better inclusion of impacts that address societal concerns e.g. 3Rs research. Communication of definitions of impact could be clearer and more consistent.

We also recommend that clear guidance be given during the submission process regarding what is an 'impact' (e.g. new jobs) compared to a 'pathway to impact' (e.g. creation of a company). Such definitions should not exclude 'narrative impact' e.g. work leading to a change in policy. |
| 21 | Do you agree with the proposal for the funding bodies and Research Councils UK to align their definitions of academic and | We support this proposal. |

	wider impact? If yes, what comments do you have on the proposed definitions?	
22	What comments do you have on the criteria of reach and significance?	Clarity on how the definitions of reach and significance are to be used by the sub-panels would be welcome. It would also be important to clarify the interrelationships between the two. We note the findings in Rand's evaluation of REF2014[2] (p. 27) that "Many felt the definitions provided were not clear and they were not sure how the panels would apply them. Several people noted that the oft-repeated line by panel members about the criteria, 'we'll know it [high significance or reach] when we see it', was unhelpful. It was felt there should not only be clarifications on the definitions provided, but also illustrative examples made available." We believe that some focus group work with panel members on these issues would be helpful in synthesising better definitions and assessment criteria.
23	What do you think about having further guidance for public engagement impacts and what do you think would be helpful?	We understand that public engagement impacts were under-reported. We are not certain that guidance for submission is the issue, more that this activity may not be valued in the same way as other impacts – and because impact in this area is known to be hard to measure. It may be helpful to include some public engagement impact case studies along with clarification about what is considered impact. However, public engagement impact can vary hugely so it will be important not to restrict reporting. Further, a better community understanding of impact in this arena and how to evaluate it would be valuable. If any guidance could point to such research this would be useful. We would advise working with specialists in public engagement to refine the approach here. In addition, prompts in the environment section to drive behaviour and change culture in some instances would be helpful. It will be important to find ways to give credit to such activities over the course of a research career and at an institutional level.
24	Do you agree with the proposal that impacts should remain	Yes. Eligibility of impacts to the institutions that delivered the associated research should be maintained.

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[2] http://www.hefce.ac.uk/media/HEFCE,2014/Content/Pubs/Independentresearch/2015/REF,impact,submissions/REF_impact_prep_process-findings.pdf

	eligible for submission by the institution or institutions in which the associated research has been conducted?	
25	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. We support the inclusion of an 'institutional impact statement' within the Environment section.
26	What comments do you have on the suggested approaches to determining the required number of case studies? Are there alternative approaches that merit consideration?	We do not recommend an increase in impact case studies compared to REF2014. We do not support the inclusion of institutional case studies because it introduces a conflict between institutions and in respect of which UoAs should be targeted. If these are introduced the number per UoA should be reduced.
27	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?	Some tightening of mandatory template fields would be welcomed to ensure consistency of assessment and to facilitate subsequent interrogation of the information
28	What comments do you have on the inclusion of further optional fields in the impact case study template (paragraph 97)?	We would favour making the fields listed in the consultation mandatory to improve consistency of reporting and potential analysis. The BPS commissioned a doctoral research project in 2016 to explore how impact was achieved in REF2014 case studies in the context of drug discovery and development. We explored how research problems were formulated, what forms of cross-disciplinarity were employed, and what channels of knowledge transfer, translation and negotiation were utilised. We also focussed on the role(s) that pharmacology plays in drug discovery impact, specifically whether pharmacologists acted in leading, key partnership or supporting roles. We have found it difficult (although not impossible) to extract the kind of data that could help us understand the role of individual disciplines like pharmacology in drug discovery, and more importantly: how our discipline interacts most effectively with others. We have used the

experience of this data extraction project to inform our answers, and offer suggestions for making such projects more efficient in the future.

Having built a significant core capability in this area, we would be happy to share our experience with HEFCE regarding the project as a whole, but in response to this question, we suggest a number of additional mandatory fields we would have found useful:

- Disciplines involved in crafting research outputs (based on the methods employed, rather than on job titles or department/school affiliations, but this may be covered by our suggestion of discipline tagging),
- Reference to an impact case study from REF2014 if the REF2021 submission builds on this work
- Check-box to include whether *in vivo* models were used and performed to accepted standards of rigour e.g. ARRIVE guidelines (https://www.nc3rs.org.uk/arrive-guidelines), as well as ensuring compliance with reporting standards, this information would facilitate future assessment of the benefits versus the harms.
- Check-box (tick all that apply) to indicate if funding was public/private/third sector. We would advise inclusion of an optional text box to allow authors to elaborate.

In addition, we are happy to share some of our initial findings for drug discovery and development:

- We assessed impact case studies submitted to REF 2014 for impact in drug discovery and development, comparing database tagging of pharmacology case studies with that determined through expert analysis. Analysis of 268 case studies showed that pharmacology contributions assessed through using tagging in the publicly accessible REF impact case study database (50 case studies) are a significant underestimate of actual pharmacological involvement (176 case studies)
- Further, looking at all 268 case studies, pharmacology acted as a partner or supporting discipline in 51% of studies, leading the work in a further 15%.
- Pharmacology made contributions to impact in drug discovery and development across pre-clinical and clinical work
- We have also begun to assess REF2014 impact case studies for 'safe, effective and efficient use of medicines'.

We would be happy to discuss this project in more detail if that would be helpful.

29	What comments do you have on the inclusion of examples of impact arising from research activity and bodies of work as well as from specific research outputs?	Yes. Research outputs (which includes patents and bodies of work) should be the only source of examples of research that deliver impact.
30	Do you agree with the proposed timeframe for the underpinning research activity (1 January 2000 to 31 December 2020)?	Yes.
31	What are your views on the suggestion that the threshold criterion for underpinning research, research activity or a body of work should be based on standards of rigour? Do you have suggestions for how rigour could be assessed?	The threshold criterion should be based broadly on an acceptable standard of research rigour, rather than a 2* classification.

The definitions of rigour in the assessments of outputs should include clear methodological criteria about the reporting of animal research in individual research articles. All rated papers should accord with the ARRIVE guidelines. Only papers which indicate that researchers meet quality criteria for experimental design and reporting relevant to their disciplinary area, including identifying appropriate sample size, mitigating bias, incorporating randomisation and the blinding of outcomes, should be considered as essential to meet standards for international excellence. |
| 32 | Evaluation of REF 2014 found that provision of impact evidence was challenging for HEIs and panels. Do you have any comments on the following:

 a. The suggestion to provide audit evidence to the panels?
 b. The development of guidelines for the use and standard of quantitative data as evidence for impact?
 c. Do you have any other comments on evidencing impacts in REF 2021? | a. We are in favour of the submission of audit evidence to the panel, along with the case study. In order to minimise additional workload on sub-panels, only a sample of case studies should be audited. As noted, this approach would also avoid HEIs becoming involved in audits.

b. We would favour the standardisation of quantitative data, as well as testimonials and evidence of changes in law, regulation, policy and public attitudes as evidence where possible. This evidence is been cited in REF2014 case studies anyway, but standardisation would improve consistency.

Finally, we would like to see a move away from separate categorisation of economic impact, environmental impact, international development impact, health impact etc., and towards more modern conceptual models where these overlap and interact, such as Europe 2020's smart growth, sustainable growth and inclusive growth. |

33	What are your views on the issues and rules around submitting examples of impact in REF 2021 that were returned in REF 2014?	Re-submitting impact case studies should only be allowed where new impact material can be clearly demonstrated and linked to new research carried out in the assessment period. Authors should acknowledge that the new case study is linked to an impact case study in REF2014 and how the impact has developed and what the added value is.
Environment		
34a	Do you agree with the proposal to improve the structure of the environment template and introduce more quantitative data into this aspect of the assessment?	Broadly, yes. However, this must be balanced against the fact that quantitative data, alone, will not provide a rich picture of the environment and so may hinder the sharing of best practice. For that reason, we are keen that a narrative section is retained but that it is supplemented by the appropriate and consistent use of metrics.
34b	Do you have suggestions of data already held by institutions that would provide panels with a valuable insight into the research environment?	We welcome the use of suitable environment metrics, for example to include: PhD completions per year, research grant income and institutional infrastructure metrics. We note the usefulness of the Environment statement in both capturing activity and driving behaviour. We recommend that the Environment statement should include mandatory fields for key institutional behaviours that REF is aiming to support or drive (e.g. compliance with the open access policy; compliance with standards on the use of animals in research; support for interdisciplinarity, collaboration and impact; supporting research integrity) HEIs should be asked to provide statements detailing institutional practices and infrastructure in support of such outcomes. For example, evidence for research environment has the potential to demonstrate how institutions have implemented a culture of care throughout the different aspects of animal research in their establishment. This includes evidence of institutional leadership and support, inclusivity of animal care and animal technicians in key decisions, demonstrable commitments to the 3Rs, the availability of relevant expertise in statistics and experimental design for all researchers, and sustainable strategies for managing and sharing data from animal research, including the publishing of negative results. Evidence of practical engagement with a culture of care should also be given e.g. implementation of principles outlined in the Concordat on Openness on Animal Research.

		Requiring such information would help to drive behaviour, but also collate a pool of data for later assessment of 'what works'.
35	Do you have any comment on the ways in which the environment element can give more recognition to universities' collaboration beyond higher education?	Industrial funding/collaboration is one of the assessment criteria in most of the University world rankings and should be considered as a separate element. We also suggest that the environment element seeks to record specific examples of pathways to impact that are in operation in the HEI, or that faculty are involved in. For an example of a collection of impact pathways, see http://www.sciencecampaign.org.uk/resource/UKScienceBase.html, p. 28 As discussed in Q34, collaboration could be added as a standardised field in the environment section. HEIs could be asked to detail institutional strategies and tactics to support this outcome.
36	Do you agree with the proposals for awarding additional credit to units for open access?	No. We think that this should be built into the environment section as detailing how HEIs are approaching the mandated open access policy. It may be possible to extract good practice in this way and build on it for the next assessment, but will be too complex at this stage.
37	What comments do you have on ways to incentivise units to share and manage their research data more effectively?	We believe that the principle of asking HEIs to share their approach to data sharing and management as part of a standardised environment submission would incentivise this outcome. If HEIs have strong processes in place across the required environment statement fields (including data management and open access) then such an environment statement would score more highly. Conversely, the lack of such processes (and therefore ability to report against the field) would highlight areas of weakness and affect the environment score.
Institutional-level assessment		
38	What are your views on the introduction of institutional-level assessment of impact and environment?	We support an institutional impact statement but not case study. This could be built into the Environment statement as discussed previously. If the institution environment deals with key activities at institutional levels (e.g. open access, strategies for impact, equality and diversity) and are assessed against these, this would be a useful way of calibrating across universities. REF could build in key strategic drivers and measure HEIs against these. For research using animals, this would incentivise promotion of a culture of care. However, a process would

			need to be put in place to ensure that the concept of collaboration is standardised across different fields.
39		Do you have any comments on the factors that should be considered when piloting an institutional-level assessment?	We support proposals for an institutional environment assessment, and recommend that this should incorporate capturing institutional approaches for delivering impact rather than a separate institutional impact case study.

We see that such an institutional assessment would aim to do two things:

1. Monitor activity over key categories (e.g. those listed in paragraph 122 of the consultation document)
2. Drive HEI behaviour in support of good practice in these key categories

We agree that institutional environment assessments must be flexible to allow for varied research environments. However, we are also pleased that in REF2014, the assessment criteria recognised tenets of good practice – particularly when it comes to development of researchers.

There is a risk that such an assessment ends up allowing HEIs to claim activity (e.g. through listing schemes) with no indication of how they are embedded 'on the ground'. The challenge is how such integration can realistically be measured and how the views and experiences of those affected (e.g. early career researchers) can be reported in order to hold the HEI to account.
For example, we are concerned that in REF2014, commitment to 'Equality, Diversity and Inclusion' does not feature strongly in the environment assessment criteria, although it is mentioned in one bullet point:

- evidence of how the submitting unit supports equalities and diversity

HEFCE's own Equality & Diversity statement (and accompanying objectives and approach) is much stronger in this regard:

- "We believe that a diverse and inclusive organisational culture – one in which everyone feels valued and can learn or work to their full potential – makes for a more effective and productive workforce. This applies both within HEFCE and in the higher education sector. The term 'equality and diversity' describes an approach that values difference |

and treats each individual fairly and with dignity and respect, free from harassment and bullying."[1]

The strength of this statement should be reflected in the REF assessment process. We would also like to see evidence of that all protected groups are being taking into account and of a supportive working culture. HEIs which are non-compliant or merely paying lip service to equality & diversity (plus other behaviours valued by HEFCE in pursuit of equality, fairness and research excellence) should be penalised in the REF environment assessment and exemplar performers should be recognised.

We feel that HEFCE should be confident in using the REF2021 exercise to drive such behaviours. Part of achieving this will be a clear reporting framework that forces HEIs to declare activity and how they are monitoring/evaluating success. We are aware that HEFCE has previously used a framework approach to extracting evidence-based information about strategy and outcomes.

A framework such as this for each of the key categories would encourage HEIs to report not just what they are doing, but whether it has been successful. Further, building on the idea of the REF submissions as a source of data as well as an assessment exercise, a social sciences research project could be commissioned to review these responses, asking questions and drawing out themes across the key categories.

	Outcomes and weighting	
40	What comments do you have on the proposed approach to creating the overall quality profile for each submission?	We are happy with the proposed weightings.
41	Given the proposal that the weighting for outputs remain at 65 per cent, do you agree that the overall weighting for impact should remain at 20 per cent?	Yes.

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[1] http://www.hefce.ac.uk/workprovide/ed/

42	Do you agree with the proposed split of the weightings between the institutional and submission-level elements of impact and environment?	We agree with the proposal.
Proposed timetable		
43	What comments do you have on the proposed timetable for REF 2021?	The timetable seems reasonable.
44	Are there proposals not referred to above, or captured in your response so far, that you feel should be considered? If so, what are they and what is the rationale for their inclusion?	The publication of review papers is currently de facto discouraged by the REF. However, some reviews can be very important in the development of a field, because they interpret existing knowledge in a new light and so shifting research paradigms. REF submission criteria should allow for the recognition of these.
Other comments		

1. We recommend that panel members be given a greater dynamic range for scoring of impact and environment assessments. Current '0.5 integer' scales did not allow for enough granularity.
2. We recommend the use of the 12point scale adopted by some sub-panels in REF2014 to score outputs, impact and environment, to improve consistency of scoring
3. We recommend removal of the rule on multi-author papers. The rule was unworkable in practice, and we feel that the output should be counted regardless of where the author is placed on the author list.