Annex F Clinical Medicine panel: additional feedback

Types of impact

1. Two main types of impact were submitted to the Clinical Medicine panel:

a. Improvements to healthcare – including improved quality of life for patients, better health outcomes, lives saved, changes to clinical guidelines and practices, improved public awareness, and changes to healthcare policy.

b. Economic benefits – predominantly through start-up companies and medical technology, contributing to the pharmaceutical industry, and reducing the costs of healthcare.

2. In observing these two main types of impact the panel noted that there were not many examples of impact through experimental medicine submitted, in favour of more applied research, for example clinical trials.

3. There were a few examples of impact through public engagement, however the panel found that the link between the research and the public engagement activity was generally not clear enough, and in some cases the evidence of impact was limited.

4. Some case studies provided simple examples of investment in medical research that have not demonstrated impact as yet and these were not viewed positively by the panel.

5. The panel received several examples that were essentially 'life histories', listing numerous achievements throughout the distinguished career of an individual. As these did not provide sufficient evidence of any particular impact the panel considered they were not suitable as case studies.

Stage of impact

6. The panel discussed a number of issues surrounding the assessment of case studies where the impact was at an early stage:

a. The panel recognised the several different stages by which basic science translated to improvements in patient care, and the often lengthy timeframe for this to occur. Drug development, for example, involves a number of milestones: obtaining a clinical trial authorisation, completing the first in-man study, completing a phase two then phase three study, drug registration and post-marketing surveillance. Disease prevention and diagnosis have other milestones.

b. Where examples were premised upon excellent research and had realised some level of tangible outcome at any stage of development (that could relate to trial practice as well as trial outcomes), the panel considered these to meet the criteria and assessed the impact for what had been achieved so far.

c. Where case studies were judged to illustrate potential only, with no identifiable benefit arising as yet, the panel graded these as unclassified.

d. The panel felt that while there should be a means for rewarding examples where a significant early stage impact had been demonstrated, they should not score as highly as interventions that have already been applied more widely and shown to have transformed healthcare. Such examples could be submitted to a later REF exercise, after the new treatment had been taken up.

e. There was some debate about how to score examples where 'proof of concept' for a new and potentially transformative treatment had been achieved. While the 'reach' of such examples would necessarily be very limited, they could be seen as highly 'significant' and hence score reasonably well.

Contribution

7. The panel discussed how to take account of the relative contribution that a unit's research made to achieving an impact which was underpinned by a wider body of research. The panel received a number of case studies where an impact had arisen through collaborative working, between HEIs as well as with industry, and concluded the following:

a. Case studies should clearly explain the role played by the submitting unit, especially in multi-centre trials or collaborations with industry.

b. The relative contribution should be taken into account when awarding a score. However, there was a concern not to disadvantage HEIs without trials units and a recognition that many factors were involved in why a particular unit is chosen to conduct trials, which should be taken into account. The panel felt that a balance will need to be struck between attributing credit where it is due and discouraging future multicentre collaborations because of concerns over future attribution of impact.

Valuing different types of impact

8. Several issues were considered as the panel assessed the diverse range of impacts submitted:

a. The panel noted that it could be challenging to assess economic impacts with the same criteria as health benefits. However, there was a consensus that it was important to support academic collaboration with or contribution to the pharmaceutical industry, and that these types of impact should not be devalued when compared with healthcare examples.

b. There was some discussion about examples of impact from commissioned research. On balance, the panel concluded that as a significant factor in attracting a commission was the specialist expertise of a unit or individual, this was eligible as an example of 'impact through researchers'.

c. While it was noted that the quality of research was evaluated elsewhere in the exercise, it was felt that impacts arising from innovative science, novel discovery, or unique interactions all should be recognised as at a premium. It was agreed that examples

describing contributions to an impact in a 'crowded field' would need to demonstrate a unique or outstanding role to score highly.

d. The panel considered examples of impact through the role of special adviser. While it was agreed that this was an assessable impact, it was noted that a clear link to the individual's research must be demonstrated.

e. Some panellists considered there may be challenges inherent in assessing the impact of preventive medicine.

f. It was agreed that positive or negative trial outcomes were both admissible for assessment.

Criterion of 'reach'

9. The panel discussed 'reach' with respect to both the geographical spread of the impact described and the rarity of the condition involved:

a. Some panel members felt that the benefit should be internationally applicable for a case study to achieve the highest score. However, other panel members considered that significant impacts upon the NHS could merit the highest score, and also noted the extraneous factors involved in changing, for example, US medical practice. Overall the panel concluded that a major benefit within a geographically defined region could achieve 4* impact.

b. Panellists also discussed whether the criterion 'reach' should be understood as including the number of patients affected, which could have implications for research into rare conditions. Members generally felt that major benefits to patients with such conditions should be able to score 4* impact, adding that research into rare conditions often provided more widely applicable discoveries.

Presentation and guidance

10. During the assessment period the panel identified several areas where further guidance should be provided to HEIs:

a. Panellists noted that the template did not encourage the significance of the impact, and its link to the research, to be articulated clearly. It was agreed that altering the order of the template, to start with the underpinning research, would improve the presentation and assist panellists with the assessment process.

b. It was agreed that guidance should be provided to ensure the impact is clearly explained and distinguishable from narratives only describing activity rather than the outcomes from it.

c. Case studies were viewed more positively where they were focused on a demonstrable impact, rather than listing a range of impacts across the work of a unit.

These tended to lack sufficient evidence of specific impacts, or the overall strength of the case was diluted by including some impacts that were less strong.

d. It was agreed that case studies describing the achievements of single individuals over the course of their career should be discouraged. It was felt that where these examples did not describe any clear impact, they would receive a mark of unclassified. It was also suggested that even where a case study was based predominantly on an individual, it should explain how the individual achieved impact within the context of the institution.

e. The panel also found that it was not beneficial to spread one significant impact across multiple case studies, with each describing a different facet of the benefit achieved. The submission of one strong example would have scored more highly.

Evidence and expertise

11. Panellists found that the evidence provided within the case studies was not always sufficient in detail to underwrite the claims made and enable the panel to make a judgement. This could potentially place a significant burden on panel members to undertake further investigation to verify the claims, or in some cases implied that panels would need to rely on prior expert knowledge.

12. The initial scoring of some case studies differed between individual panel members, requiring discussion in meetings to reach a consensus. To some extent these initial differences reflected members' expertise in relation to case studies and whether they applied prior knowledge when forming judgements, and also whether individual members gave case studies the 'benefit of the doubt' where there were shortcomings in the evidence provided.

13. The panel concluded that it will be important in future for case studies to contain all the evidence required by panels to make judgements.

Impact statements

14. Panellists considered the additional value of the evidence provided in the 'impact statements' and whether they should be used to moderate the impact profiles awarded to submissions. The panel scored the impact statements but decided that, while they provided useful contextual information and complemented the case studies in some instances, the overall value of the evidence did not merit using them as a moderating tool in the pilot:

a. Panellists found it was difficult to formally assess the statements as there were no clear criteria for this; it was very difficult to verify the kind of information provided in the statements; and the statements differed substantially in nature between institutions, making comparisons difficult.

b. Much of the information in the statements suggested an overlap with the kind of information that would be submitted to the environment element of the REF.

c. Concern was noted over the effect that the size of the institution would have upon both the submission of a high quality statement and any eventual use in moderation.

15. The panel noted the value in seeing the strategies in place for facilitating impact, but concluded that the value of the impact statement in its current form did not warrant the burden placed on units in submitting these. The panel agreed that this information should be submitted as part of the environment element of the REF.

Assessment process

16. The Clinical Medicine panel in the full REF will receive a large volume of material to assess and, based on the experience of the pilot, the pilot panel considered what advice it could offer. Given the large volume there will be limited time in meetings to discuss individual cases in detail, and the panel felt that a smaller panel assessing the case studies would help with attendance and efficiency during meetings. It will also help to undertake a benchmarking process at the outset; and for panel members to provide their individual scores to be collated in advance of the meetings.

Annex G Physics panel: additional feedback

Submissions

1. Cases studies submitted to the Physics primarily reflected impact relating to the development of products and services, although a significant number (11 out of 68) reflected impact deriving from public engagement, and some focused on policy impact.

2. Of the products and services categories, virtually all were examples of translational activities, that is to say that the relevant department's research was developed into a product or service with the active involvement of the department, or the research resulted in a spin-out company. The panel were keen to note however, that these kinds of impact can arise more indirectly, where ideas are taken up from research papers and developed further by industry without reference back to the originating department. This could apply to other disciplines too. The panel were concerned that the REF process might not be able to capture this type of impact, as in practice it would be difficult for institutions to track and hence submit such developments.

3. The case studies focusing on impacts through public engagement mainly related to astronomy research. They raised a number of issues about the evidence of impact, the relationship with the underpinning research, and the criteria for assessment. These issues are discussed below.

4. The panel noted that they did not receive many policy development case studies. Of those they received, the panel considered that merely participating in an advisory body is not sufficient to demonstrate impact: the case study must demonstrate that the body has actually made a difference.

5. The panel also received some examples of the following, which it did not consider to be appropriate types of impact:

- Training of postgraduate research students (other than in rare cases where delivering individuals with scarce skills).
- Continuing professional development (CPD) courses which were only tenuously linked to research.
- Purely academic impact.

6. The panel received several examples where a department's research led to the development and production of an instrument for scientific research. The panel counted this as legitimate impact given that it was produced and sold commercially by a company.

7. The panel would have welcomed more guidance on what constitutes early/interim impact, as it felt that it may have marked down some case studies as lacking impact when in fact they did have some early stage impact.

8. One particular issue related to fusion research. This area is potentially important, but any real impact is many years away. However, the panel felt that it would be possible to identify a series of interim impacts, as well as impacts in the area of public policy.

9. The panel received 15 supplementary case studies, which were intended to test the boundaries of aspects of the REF rules. The kinds of issues which these case studies addressed included:

- Issues of attribution
- Examples of early stage impact
- Underlying research undertaken outside the qualifying time period
- The panel's attitude to public engagement and outreach activities.

10. The panel welcomed the opportunity to consider the supplementary case studies and felt that, in general, the issues which they raised were not significantly different from those which it had encountered in assessing the main body of case studies. On the question of attribution, it concluded that the supplementary case studies did not point to any need for a change in the existing rules. It did conclude that the timeframe between the research and its impact should be extended for the Physics UOA.

Public engagement

11. The panel received a significant number of public engagement case studies (11 out of 68), most of which were based on Astronomy research. These raised a number of issues:

a. In some cases the cited research was not specifically and directly related to the public engagement activity. It was agreed that, in those cases, the cited research could instead be used to demonstrate the credibility of the department by showing that it undertakes high quality research in the general field in which it undertakes public engagement work. *Nevertheless, there should be some distinctive contribution of the department's research to the engagement activity.* This could be, for example, the researchers involved drawing substantially on their department's research (as well as on their wider experience).

b. A piece of research work in an area of public interest may happen to generate substantial media interest and be widely reported. The panel considered how to compare this form of serendipitous, passive impact with cases where a department has actively developed an active public engagement activity. It concluded that, in the case of public engagement, it should take account of *sustainability*. Consequently, in order to gain the highest scores, there must be some form of ongoing engagement activity which follows up on any initial serendipitous media success.

c. Public engagement case studies should include evidence of the benefits derived by the recipients (e.g. outcomes of satisfaction surveys) and should not just describe the activity.

d. Some areas of physics are of greater public interest than others. The 'sexier' areas of physics should not be given an automatic advantage.

e. Care must be taken not to simply reward the efforts of outreach activities themselves as that does not give a clear indication of the quality, and hence societal impact, of the underlying research. Thus, once the issue of 'sexy' or media-friendly research topics is factored out it is quite appropriate to assume that greater media interest in a research programme means just that: a greater impact of the research.

Assessment issues

12. The panel welcomed the guidance from the REF team that the pilot panels were expected to produce broadly similar overall distributions of scores. In undertaking its initial assessment of the case studies, the panel marked rigorously in terms of the evidence requirements. It then adjusted scores for some of the borderline case studies to form the final profiles.

13. The Physics panel stressed that the REF should not and cannot provide a mechanism for comparing the impact of research between different disciplines. The assessment of impact in the REF could only be used to compare the performance of departments within each discipline. The panel thought that this could be achieved by including some element of norm referencing in the process.

Impact statements

14. Each panel member read all of the impact statements and ranked them into four groups, roughly corresponding to quartiles. Scores were then attached to the groupings – running from 4 for the upper quartile to 1 for the bottom quartile – and the average score calculated for each institution. The averaged score was included in the institution's impact profile, weighted at 15%.

15. As a cross check to this process, the panel also considered a ranked table of research income from users per FTE. There was a close correlation between the rank orders for user income per FTE and average scores for impact statements.

16. The panel found the impact statements useful when they provided evidence of the institution's impact strategy. They were not helpful when they merely repeated evidence in the case studies.

Time period

17. The panel considered that it can take longer than 15 years for the impact of some physics research to become apparent. It therefore recommends that, for physics, the eligibility period for the underlying research should be extended to 25 years. However, in order to ensure that the exercise does not become too backward-looking, this provision should only be allowed in cases where a department has continued to undertake research in the area.

Impact weighting

18. The panel considered that the first round of REF will still be a developmental process as institutions gain experience of producing robust and well-evidenced case studies. The panel therefore recommended that the weighting for impact should be less than 25% for the first round of REF, although the weighting should still be sufficient to ensure it is a meaningful process.

Sensitive and confidential information

19. Some of the physics case studies were very sketchy because they were claimed to be commercially confidential. Industrial members of the panel considered that it should always be possible to agree statements with commercial partners, ideally well before any future impact assessment exercise. In addition, HEI lawyers should be made aware of the value to the HEI of effective impact submissions, so that appropriate modifications can be made to standard non-disclosure agreements.

20. Since the timescales of the impact assessment exceed those of most patents and commercialisation, the panel considered that:

a. It was very unlikely that commercial harm could or would result from case studies and REF panels are likely to be sceptical of the stated impact if commercial confidentiality is given as the reason for withholding information.

b. The basic research will have been published and it should usually be possible to demonstrate the impact without divulging any key commercial know-how developed in translating the research to a product or service.

c. It is unlikely that commercial benefit to a competitor could be obtained from what is likely to be written in a case study.

21. A similar issue arose in relation to case studies relating to defence and security. Panel members with expertise in these areas considered that it should be possible for institutions to agree with the sponsor of the work an unclassified statement with sufficient information to allow its impact to be assessed. It is important to approach the sponsor in good time prior to the submission of the material (at least one month) as they will usually have to go through an internal release period to give permission for this disclosure, in similar manner to an open literature publication.

22. In order to help institutions in producing case studies in defence and security areas, panel members identified a list of issues which need to be considered. They have also prepared some guidance on the distinctions between various categories of reports (e.g. unclassified, restricted, contractors' reports and so on) and the rules which apply to them.

23. The panel suggests that its guidance on commercial confidentiality and defence/security issues should be made available for information to the Physics panel for the 2014 REF.

Annex H

Earth Systems and Environmental Sciences panel: additional feedback

1. The panel agreed overall with the concept of assessing impact in the REF and found through the pilot exercise that the impact of research can be assessed. The panel identified a number of challenges in the assessment, and recommends a number of revisions to the process and improvements to the guidance to make the assessment more robust.

Submissions

- 2. The majority of case studies received by this panel related to:
 - Processes, services and technologies relating to conservation, environmental management, and identification of risks and hazards.
 - Impact on policy development and implementation relating to the environment and climate change.
 - Product and service development, particularly relating to oil exploration, and in the energy and utilities sectors.

3. A small number or cases were received covering impact on public health, engaging the public with environmental research, skills development and spin-outs.

Impact on policy

4. Many of the policy-oriented case studies focused on influencing the development of policy, rather than impacting on the eventual policy outcomes (as these were not yet known). The panel considered that influencing the policy process and policy debate, not just the policy outcome, were legitimate impacts. However, it was not sufficient in these cases to show only that researchers had acted as advisors or submitted evidence to policy agencies; they should also explain how their research has influenced policy thinking and debate.

5. The panel felt that it should be possible for HEIs to submit cases where an influence on wider public or political debate can be demonstrated, even if the research was not taken up by policy-makers. This would be a benefit to the democratic process.

6. Some case studies focused on influencing major international policy developments, for example contributing to Intergovernmental Panel on Climate Change (IPCC) reports. These raised challenges about attribution and the 'relative contribution' of the unit's research to these developments, given that numerous researchers typically contribute to them. It was not always clear whether the specific research made a distinctive contribution or altered the way in which the policy took shape.

7. The panel made judgements about this relying on the expertise of its members, some of whom had been involved in such developments and understood the nature of individual contributions to them, as well as the relationship between science and international policy formulation. This highlighted the importance of ensuring the right depth and breadth of expertise on REF panels.

Impacts on industry

8. Some examples of industrial impact raised the question of whether these impacts were synonymous with the value of the research to companies. The panel considered that 'value' may have driven the research but impact relates more to the outcomes.

9. The training of post-graduate students who were then employed in other sectors was presented in some cases studies as impacts (alongside other benefits). This was not considered appropriate evidence of impact for a case study, except where the training was in a set of scarce specialist skills, building directly on the research undertaken at the HEI, and bringing clear benefits to their sector of employment.

Impact through public engagement

10. Some case studies claimed impacts through communication and engagement with the public, for example through broadcasting and the media. In these cases the panel was looking for a clear link between the research and the content of the communications and engagement activity. It was also looking for evidence of the benefits of the activity, recognising that this could be challenging to provide. The panel felt that further guidance on assessing the impact of public engagement would be helpful.

Early stage impacts

11. The panel found that a large proportion of the impacts they received were at a relatively 'early stage' due to the often incremental and lengthy nature of genuinely large scale or groundbreaking impacts in this discipline. Some cases made various claims about future potential impact, with little evidence of outcomes.

12. The panel's approach to this was to recognise any impacts of any scale that they could identify as having taken place during the assessment period (2005-2009), and sought clear evidence of such impact. If the evidence was not provided, the panel did not make positive assumptions.

13. The panel would urge HEIs to submit impacts at a more mature stage of development; or to submit impacts at an early stage only if they are substantive and clearly evidenced.

Evidence

14. The panel found that a lack of clearly presented evidence in a number of cases made their assessment challenging. It identified a number of weaknesses that should be avoided:

- Impacts should not simply be asserted or inferred; they should be specified and evidenced in a way that is verifiable.
- Case studies should focus on impacts already achieved, not predicted impacts.
- Submitting HEIs should demonstrate how *their* research specifically has contributed to the impact.
- Some case studies appeared to confuse the impact period with the research period.
- Income to the HEI may be cited as supporting evidence of impact but is not in itself an impact.
- Claims about uniqueness and use of superlatives should be avoided.
- Relevant dates need to be highlighted, to make more explicit when the research and the impact occurred.
- Case studies should be focused on substantial impacts. Some case studies presented a suite of activities including some weaker examples of impact that diluted the overall strength of the case.

15. The panel recognised that the pilot HEIs had limited time to prepare their submissions and anticipates that HEIs will need to dedicate resources to facilitate the preparation of high quality impact submissions in the REF, and may need training.

16. The panel also felt that the template and guidance contributed to these difficulties, and recommends that the ordering of the template should be reversed, to explain the research and then present the impact. The template should ask focused questions about the following:

- A description of key, relevant research from the HEI, in the relevant period, with citations.
- A description of the impact between 2005-09, including
 - o Its significance
 - o Its reach
- An explanation of the link between the research and the impact.
- References to the research and contacts for audits. (Marking authors who were at the submitting HEI at the time the research was carried out in bold text. The number of references to underpinning research should be limited to 6-10.)

Assessment issues

<u>Criteria</u>

17. The panel agreed not to change the wording of the criteria and level definitions, but to test them on the case studies and then report any issues arising. In applying the criteria, the panel identified the following points:

a. There was some potential for confusing 'reach' with a geographical scale; however geographic spread should only be considered as one dimension of 'reach'.

b. The definition of 4* impact included the words 'groundbreaking or transformative'. The panel felt it extremely rare for research to have truly transformative impacts on major global developments such as climate change. In this discipline, impacts of the highest standard can be incremental over lengthy periods of time, and the level definitions for this discipline should be amended or interpreted in an appropriate way.

c. 4* grades should be awardable to case studies that display either exceptional reach or significance – it should not be necessary to score the top grade in both criteria to obtain a 4* grade.

Scoring case studies

18. In scoring the case studies, the panel applied the level definitions and criteria rigorously, avoiding making positive assumptions where the evidence had not been provided. Given the wording of the level definitions (with 4* referring to 'transformative' impacts) and shortcomings in the submitted evidence, the panel initially found it difficult to award the highest score to many case studies. Nevertheless the panel could discriminate between case studies using the criteria and grading scale.

19. The panel awarded some 'Unclassified' scores to individual case studies. Some of these were deemed ineligible, and some had demonstrated minimal or no impact. The panel felt this distinction should be made.

20. Given the very diverse range of research and impacts across this UOA, the panel found it was important to include members with a breadth expertise, including expertise in the interface between science and policy development, the application of research in industry, and third sector users of research.

Impact statements

21. The panel reviewed the impact statements and considered:

- What useful information they provided in addition to the case studies.
- Whether they should be scored and used to moderate or inform the impact profiles.

22. The panel found that much of the information in the impact statements duplicated the content of the case studies, and was often wordy, or included aspirational statements that lacked evidence. Where they did include useful information, they showed how the case studies fitted into the overall structure and activity of the department, and how the HEI had supported impact and engagement. User members noted they found it particularly useful to see the wider strategy for impact.

23. The panel decided not to score the impact statements for the purposes of the pilot exercise. It used them as contextual information to frame the case studies, and felt that in the real REF:

- A focused statement of the strategic approach to impact should be submitted.
- Repetition between this and the case studies should be discouraged.
- This should be assessed as part of the 'environment' element of the REF; and also provided as contextual information to those members that are assessing case studies.

24. The panel suggested that the mechanism adopted in the pilot exercise of rounding *up* to the nearest ten FTE in determining the volume of case studies to submit should be changed for the full REF to a standard rounding process to the nearest ten FTE.

Attribution and contribution

25. In addition to the attribution difficulties in cases where many researchers had contributed to major policy developments, the panel found that the guidance on provided by the REF team about what particular forms of contribution were eligible was complex. The scenarios provided by the REF team were helpful but could not always be mapped to the information provided in the case studies. The panel requests clearer guidance on this.

Corroboration

26. The panel found it important to have the capability to follow up contacts to seek independent corroboration of claims made in case studies. HEIs should be strongly encouraged to include these contacts in case studies, to be followed up by the panels on a sample basis.

27. The panel recognised that 'audit trails' for some types of impact – such as influence on complex policy debates with multiple research inputs – may be more complex and it could be challenging to provide relevant and practical contact details that sufficiently corroborate the claims made. In these cases references to policy documents could be more useful, if they properly document the research inputs, or it could be useful to allow documentary corroborating evidence such as quotes or specific references.

Annex I Social Work and Social Policy panel: additional feedback

General conclusions

1. In general the panel found that the pilot had demonstrated that it was possible to assess the impact of research for our subject areas, although doubts were expressed about whether the methodology was yet sufficiently robust for impact to initially bear 25% of the weight of the total assessment.

2. The submission form used for the pilot needs to be significantly redesigned before being used in any future assessment.

3. There will need to be flexibility for subject-specific guidance to be given to submitting institutions.

4. HEIs have an obligation to help panels form a judgement by clearly evidencing the claims they make and should not rely on panels undertaking additional research to provide missing evidence.

Submitted case studies

5. The large majority of case studies submitted to this panel focused on influencing policy development, improving public services and impacts on practitioners. Most of these impacts were within the UK nationally, locally or within one of the devolved nations, and some related to impact in other countries or on international agencies. Case studies covered a wide range of areas including children's and social services, health, ageing, education, equalities, fiscal policy, criminal justice, housing and so on.

6. Case studies focusing on policy development typically claimed that they influenced policy decisions, improving the policy making process by providing high quality evidence to policy makers. Relatively few of these case studies were able to demonstrate the eventual outcomes following the implementation of policies changes, as the policy developments were typically too recent to do so. Nevertheless, many were able to explain clearly what the significance of the particular policy changes were, demonstrate that the policy process had been enhanced through the provision of salient high quality evidence, or that the policy was starting to show positive outcomes. The panel considered that all of these were appropriate forms of evidence. However, simply showing that evidence had been provided to inform the policy process was not considered as sufficient.

7. A small number of case studies included research that was critical of the policies or government of the day, and claimed to influence public or political debate (whether through the media and broadcasting, NGOs, think tanks and so on). The panel considered it important that these benefits to the democratic process should be recognised in the REF and institutions should not feel inhibited in submitting cases where an influence on wider public or political debate can be demonstrated, even if the research was not taken up by policy-makers.

8. The panel received some case studies that had described the whole body of a research centre's work across a number of themes, listing a diffuse range of impacts that were not clearly connected or properly evidenced. These were not considered to be effective case studies.

Definition of impact

9. In general we found that the pilot had demonstrated that it was possible to describe the impact of research for our subject areas. There was a minority concern that using this to assess the impact made by HEIs in an ordinal scale was still problematic, especially since impact may sometimes depend on the activity of third parties.

10. We felt that significant improvement to the process of assessment and the submission process needed to be made before making impact part of the REF.

11. We discussed the research council's impact document and supported the way that they use the term 'value' as opposed to 'impact'. The REF guidance states that the process is intended to '*explicitly recognise and reward universities for the contribution of their research to society, the economy, culture, public policy, the environment and quality of life'.* We suggest the term 'contribution to economy and society' might be more helpful than impact. We hope that HEFCE will liaise with Research Councils UK (RCUK) on how impact is defined.

12. We thought that the way in which research contributes to public knowledge could be better incorporated into the exercise but recognised that it is difficult in some instances to define the boundary between dissemination and impact.

13. We feel that it is important to define impact (or whichever term is used), in such a way that does not exclude particular types of research, or types of impact. How to achieve this will vary between panels and, therefore, it is important that subject panels are allowed to issue their own guidance on what constitutes impact in their areas.

14. Some submissions simply referred to researchers' engagement with users or transmission of their research but such activity does not in itself constitute impact and cannot be used as proxies for impact.

15. The message to the research community should be that we are seeking examples of where a change has occurred as the result of research activity. However, the change and its link to research activity must be clearly evidenced in the submission.

Time-frame

16. We discussed how to deal with impacts that are evident, but it is clear that a greater impact may come later. We concluded that it is up to an HEI to decide when to submit a case and that only current impact should be assessed (and not hypothetical future impact). However, current impact could well be in terms of new procedures or regulation, with the impact on individuals or institutions still coming later.

17. There was some concern that some important, larger pieces of work may not show evidence of impact within the given time period and institutions will have to judge when to submit particular case studies.

18. There is a danger that impact assessment will encourage institutions to focus on shortterm research where impact might be easier to demonstrate and HEFCE will need to encourage institutions not to do so because the most important research impacts may be from longer-term research.

Grading issues

19. For the purpose of this pilot we did not assess the quality of the research but simply assumed that all the case studies passed the quality threshold.

20. Such an assumption could not be made in a real exercise but we remain uncertain about how such judgements will be made when the timeframes for impact and the rest of the REF assessment are different. A simple way of judging that the quality of research submitted for impact assessment reaches an appropriate threshold (e.g. 2*) needs to be found.

21. We were clear that we would not want to see low quality research being rewarded for impact.

22. In the social sciences (and social policy in particular) the issue of the geography of impact may be different to other areas. On the whole we thought that in itself geographical impact is not a measure, but rather one indicator of scale and reach.

23. Sometimes the reach of social policy research impact will be limited by the jurisdiction within which the research is located and this one of the reasons why we recommend panel-specific guidance (see paragraph 13 under 'Definition of Impact').

24. For some of the submitted case studies, it was unclear how far the HEI had contributed to ensuring the research impact. In other cases it was clear that the researchers had received institutional support in ensuring that their research made an impact.

25. There was a debate over how to grade government commissioned research, since a certain level of impact is built in. We concluded that in such cases the grading should focus on whether an impact in terms of changing policy or delivery had been demonstrated. However, we were also clear that commissioned research that was not implemented because it was critical of current policy might still be able to demonstrate other impacts – e.g. by fostering further public debate.

26. Methodological research should be eligible where impact is demonstrable outside of the academy, for example changing the way in which the government or other agencies design, commission or use research.

Grading criteria

27. We suggest changing the grading criteria so that the general definitions for 'impact levels' are as follows:

Four star	Exceptional: Ground-breaking or transformative impacts of major value or significance, with extensive reach, have been demonstrated.
Three star	Excellent: Highly significant or innovative impacts, with considerable reach, have been demonstrated.
Two star	Very good: Impacts of more than modest significance and reach have been demonstrated.
One star	Good: Impacts of modest significance and reach have been demonstrated.
Unclassified	The impacts are of little or no significance or reach; or the underpinning research was not of high quality; or research-based activity within the submitted unit did not make a significant contribution to the impact.

Case studies

28. We felt that generally impact was best assessed through case studies.

29. However, we were concerned that this might play to the strengths of larger HEIs that have more examples to draw from. To help to correct this we suggest that the number of case studies an institution can submit should be related to the size of the institution, but that this might not be a linear relationship. There was some concern about judging a department on the basis of as few as two or three case studies, so a banded approach (setting a minimum and maximum number of case studies) might be preferable. This was particularly apt since the aim of the 'impact' analysis is to ensure that departments are appropriately supportive of work that engages seriously with the world outside universities.

30. The weight given to the case studies in determining the overall grading profile of submissions needs careful consideration. This is particularly true with respect to research outputs. The pilot exercise included one case study for every 10 FTE researchers; if repeated in the REF, this would give a ratio of case studies to research outputs of 1:40. As this example suggests, the grading of each case study (e.g. at 2*, 3* or 4*) will have a major impact on the overall grading profile of submissions.

31. Given that methods for assessing impact have yet to be tested through a national REF exercise, most panel members had doubts about whether impact should initially bear as much as 25% of the weight of the total assessment and felt that a reduction to 15-20% would still give a significant incentive to units of assessment. However, there were others who felt that 25% was appropriate and that if impact was introduced it needed to carry a reasonable weight.

32. Submitted case studies needed to be based on specific examples if impact is to be judged. However, some institutions had merely described the whole body of a department's work which meant that impact judgements were very difficult and often not properly evidenced. Such generalised description ought to be kept to the impact statement for the department.

33. In many cases we felt that case studies would have received a higher grade had the submission been better presented and evidenced. Some generosity was exercised in this pilot but in any final exercise a panel will only use the evidence presented in the submission. On the other hand, some institutions included much unnecessary information that did not contribute to the evidence of impact.

34. More generally advice should be given to institutions that they have an obligation to help panels form a judgement by clearly evidencing the claims they make and not to rely on panels undertaking additional research. Case studies should contain in the submission all the evidence a panel needs to come to a judgement. The naming of corroborators and references is only for audit purposes, and submitting HEIs should not expect panels to use these to seek further evidence beyond what is in the submission.

35. Where panels refer case studies to another panel they should be specific about what they are asking the second panel to comment on to help them come to a judgement about impact.

36. The pilot case studies provided good evidence of important research impacts and are an excellent mechanism for providing information to the Treasury and the public about the impact of HEI research.

Impact statements

37. We decided that the effort that an institution puts into enabling and promoting research impact is important, and evidence about this should be given a significant percentage of the final grade.

38. However, most of the impact statements submitted were purely descriptive, and lacked evidence. A revised form should discourage HEIs from simply submitting lists of what they have done. In addition, a word limit should be applied to any impact statement requested.

39. The panel recommends that the impact statement should be subsumed as a section in the environment section of the REF. There should be a part of the environment form that asks how the HEI contributed to ensuring research impact and engaging with research users. This will mean that the case studies will be considered separately and the environment section will cover a number of issues including those covered by the impact statement in the pilot.

40. However, it is important that a single panel should continue to consider the whole REF in each subject area so that the case studies and the impact element of the environment section can still be considered together.

Submission forms and guidance to HEIs

41. The form for submitting case studies could be better structured to allow submissions to tell a natural story of the research and its impact. The form should have sections on:

a. Description of the research.

- b. What is the evidence that the research meets at least 2* quality?
- c. What was the engagement that enabled the research to have impact?
- d. What specific impact did the research have?
 - i. Who/what was the impact upon?
 - ii. On what scale was the impact?
 - iii. Why was the impact significant?
 - iv. What is the evidence of impact?

42. Guidance needs to be improved but should not be so precise as to unintentionally limit what is submitted because HEIs are too concerned about following the guidance. Any guidance could instead give examples to guide people, but make the point that the list is not exhaustive.

General process

43. Members noted the importance of publicly establishing the impact of research. However, HEFCE need to consider how much effort HEIs were being asked to make to complete a submission and reduce it as much as possible.

44. HEFCE needs to clarify the rules over where research is undertaken and the mobility of researchers. Checks on eligibility were time consuming and need to be reduced by clearer rules. In clarifying the rules HEFCE need to think about how they might impact on transfer markets in researchers.

45. Those panel members involved in RAE2008 believed it had been broadly acceptable to the sector and that it is important that this is not jeopardised by having too great a proportion dedicated to impact. Peer-judged research quality must remain the single largest element of the REF. Should the impact statements remain a separate element of the REF and not be incorporated into the environment statement, we believe that the case studies should count as a larger element than the impact statements.

Composition of a future panel

46. The pilot experience was that there had been no judgement differences between the user and academic members of the panel and this gave confidence in the final grading.

47. In recruiting the panels HEFCE should be much more explicit about how much time the exercise will take up, especially for the user members. There will always be difficulties in recruiting user members and their time should be minimised. To achieve this we suggest that all members should be involved in the initial scoping meeting, only the academic members need to be engaged in the research quality element, and then the whole panel would need to involved in the impact assessment and final grading decisions. That would allow the impact assessment to be scheduled in a way that maximised the likelihood that all the user members of each panel would be able to play a full part, while ensuring that the judgements were made jointly by academic and non-academic members.

Annex J English Language and Literature panel: additional feedback

General points

1. The English Language and Literature panel (English panel) was able to assess the broad range of submissions it received and to differentiate between case studies. Overall the panel found that the case study approach worked well but would need to be refined in some areas to make the approach sufficiently robust and acceptable for the full REF.

2. The English panel discussed appropriate indicators of the public benefit of research in arts and humanities subjects that will assist the REF team in expanding current definitions and will inform guidance for the REF proper.

Assessment and threshold criteria

3. The panel found the level definitions workable. It made one slight amendment: removing the term 'ground-breaking' from the definition of 4* impacts. The panel found the criteria of 'reach and significance' appropriate for the pilot, but felt more consideration should be given to the meaning of these terms in the context of arts and humanities subjects.

4. The panel experienced some difficulty in establishing whether cited research met the 2* quality threshold, but for the purposes of the pilot exercise, in most cases were content to accept the evidence of quality provided by HEIs.

5. It was felt that the term 'benefit' was more appropriate than 'impact' to describe the diverse range of outcomes arising from research in English language and literature.

Types of impact

6. A wide range of impacts were submitted to the panel. Issues were raised around some types of impact, as follows.

Commercial impact

7. Panel members noted that publishing is one of the major outcomes of research in English and has a powerful commercial impact. However, only a limited number of case studies made reference to the publishing industry as a valid indicator of impact.

8. The trade arm of academic publishing is a very substantial economic force with global reach. The panel would have welcomed more case studies that directly addressed the extent of the impact of the publication of a monograph (e.g. a literary biography or a major dictionary or grammar of English) with reach beyond the academy. Similarly, the panel recognised that, in educational publishing, subject research can lead to text books with major impact on, for example, school curricula or the public examinations syllabus, and can result in sales nationally and internationally, with concomitant significant economic benefits.

Creative writing

9. The panel agreed that, as in RAE 2008, creative writing should be assessed against the same criteria as other case studies. In their assessment of creative writing case studies, the panel differentiated between those writers whose work was only loosely associated with a unit's strategy and those where the evidence showed that the output resulted directly from the writer's departmental affiliation. Case studies which clearly demonstrated writers' engagement with the HEI and its outreach activity tended to achieve higher scores than those that did not. The panel felt that the issue of integration of professional practitioners/artists within a department is one that is likely to require careful consideration across a range of arts disciplines.

Impact on education

10. There were relatively few examples submitted of the impact of research on the national/global knowledge base. The panel would have welcomed additional examples, such as: production of books and materials for schools where these arise directly from high quality research; shaping school curricula; changes in public examinations policy, including international examinations; and creating free-access websites. The panel noted that impact on the HE academic peer group is not eligible, and that examples should focus on impacts achieved beyond the HE community. Clear guidance for institutions would be necessary to explain fully what is eligible in this area.

Presentation of case studies

11. The panel agreed that HEIs should be responsible for presenting information in such a way that allows panels to make robust judgements. The case study narrative and supporting evidence should be sufficiently clear and transparent that the panel can take a view on the impact without having to interpret the information or gather additional material.

- 12. Particular issues were:
 - The link between the research and the impact needs to be clear.
 - The exact nature of the HEI's contribution to an impact should be explained and, where appropriate, put into context alongside the relative contribution from other HEIs and/or organisations.
 - Web links should not be used as a substitute for a clear statement of the evidence of impact (although they can be used to corroborate claims).
 - There should be a limit to the number of research outputs quoted in the case study and the key research output(s) should be highlighted.

13. It was agreed that improving the guidance to HEIs and re-structuring the case study template would help address the above issues. For example, the template should invite HEIs to describe the research activity first and then move on to the nature of the impact to show the relationship between the two.

- 14. The panel found the strongest case studies shared the following characteristics:
 - Focus: clearly formulated with an evident cohesive strategy, rather than a haphazard collection of activities.

- Depth: a persuasive account of the research undertaken and its impact, not merely its dissemination programme and an assumed impact.
- Distinctiveness: the originality of both the research and its benefit is a strong indicator of quality.
- Specificity: names of researchers should be provided plus their position in the HEI, dates and locations of the activity.
- Supporting evidence: precise funding information, data relating to different audiences, size and nature of impact.

Scope of case studies

15. Case studies varied considerably in terms of breadth. For example, some focused on the impact of an individual monograph, others on the various outputs of a team of researchers. Both were considered acceptable if a convincing case for impact were made. The case studies achieving the highest scores were focused and coherent, and took into account the broader context of the work. Those examples that were narrow with limited evidence of impact or alternatively were unwieldy and disconnected, failed to achieve the highest scores. The panel valued evidence of genuine collaborations and joint enterprises. It was felt there was a balance to be struck between specificity and the 'big picture'.

16. In their efforts to demonstrate impact, some case studies seemed to avoid examples that focused on the core characteristics of English language and literature research. In some instances panel members felt HEIs might have chosen stronger examples. However, it was also acknowledged that some submissions had been experimenting and 'testing the boundaries'.

17. The panel noted that geographical location need not be an indicator of either reach or significance. Members valued examples in which HEIs had made the most of their location. There were some very strong examples of both regional and national impact from institutions situated outside major urban centres.

18. A number of submissions included examples which seemed closer to other disciplines (including fine art, social policy and history) than English. The panel agreed that the definition of the subject 'English Language and Literature' was broad and could be interpreted flexibly. In the REF, any genuinely interdisciplinary submissions could be cross-referred to the appropriate subject panel.

Evidence

19. Some of the evidence included in case studies was difficult to quantify or substantiate. Claims about increasing visitor numbers, influencing public policy and causing cultural enrichment, were often too vague to be meaningful or directly attributable to the institution. Even where evidence was more quantitative (e.g. a number of hits on a website) it was often impossible to make a judgement without benchmarks or further contextual information. Those case studies that provided specific and well evidenced quantitative data tended to emerge with the highest scores.

20. Some case studies used anecdotal evidence such as personal correspondence and feedback from visitors. The panel felt that the value of anecdotal evidence in isolation was

questionable, but that it could offer a useful illustration of impact on individuals when used alongside other measures, and could help illustrate an objective. It was noted that the inclusion of anecdotal comments and indicators of impact might have been influenced by the available HEFCE guidance on submissions.

21. The panel felt that, on some occasions, HEIs had relied upon the reputation of a member of department or the subject matter of a piece of research to 'carry' the case study. Panel members can only make judgements based on the evidence provided, and submissions should ensure all impacts are fully articulated and evidenced.

Impact statements

22. HEIs varied considerably in their approach to producing impact statements and this made assessment challenging. The panel felt the inconsistency was due in part to a lack of clarity in the guidance about the purpose and content of the impact statement.

23. Those impact statements which demonstrated a strategic approach, together with further information to help contextualise the case study examples, achieved the highest scores.

24. Panel members felt the questions on the impact statement were unclear and there was a lack of discrimination between sections. There should be a shorter word limit and perhaps less differentiation in the word limits between different sized units.

25. Overall, the panel felt that impact statements in their current form were much less useful than case studies and should not be given significant weight in the REF. Whilst the panel was able to give credit to those impact statements that added depth and context to the case studies, it suggested that a more valuable approach might be to incorporate the more useful questions from the impact statement into the environment element of the REF exercise, and adjust the weightings accordingly.

Indicators of the public benefit of research in English

26. The English panel recommends a review of the guidance notes and in particular a wider and more sensitive understanding of what might be appropriate indicators of 'cultural benefit'. Members felt it would be useful to provide some indicators of the benefits of research in English, informed by the evidence of best practice emerging from the case studies submitted to the pilot exercise. This would ultimately (i) enable judgements to be made about the public benefit of research in the subject; (ii) advance discussion in HEIs about the additionality of scholarly and practice-based research; and (iii) assist the REF team in expanding the current definition of the 'impact' of research in Arts and Humanities subjects.

27. The BBC routinely measures quality, reach, impact and value as part of its six public purposes. The panel found that the BBC criteria provided a useful framework for thinking about a public service organisation's approach to cultural benefit and helped to inform discussions. The panel agreed that the benefits of research in English Language and Literature beyond the academy could be mapped against broad objectives closely aligned to the BBC's criteria:

• Stimulating creativity and cultural excellence.

- Promoting education and learning.
- Advancing the UK's nations, regions and communities.
- Bringing the UK to the world and the world to the UK.
- Sustaining citizenship and civil society.
- Promoting the benefit to the public of emerging communications technologies.

28. The panel considered that within this framework the following types of research in English could be demonstrated to have public benefit.

Research that feeds the creative economy, especially publishing

29. It was surprising that more case studies in the pilot did not exploit this aspect of the economic benefits of research in the subject. The panel would have welcomed a case study that revealed for instance how even a specialised monograph creates employment for commissioning editors, copy editors, production, promotion and distribution staff, as well as, for example, typesetters in India and printers in China.

30. Educational publishing has an equally powerful reach: new discoveries and insights regularly find their way into editions and textbooks, whether the introduction to a Penguin Classic or a World's Classic, or an ESOL language textbook. The panel noted that Penguin Classics etc. are not primarily textbooks (which are traditionally associated with teaching as opposed to research) but have a huge sale as trade books in a £3 billion UK publishing industry.

31. The digital economy was another relatively neglected area: subject research feeds directly into the development of new business models for digital publishing, develops new editorial practices and models and advances the rapidly growing industry of e-books etc.

32. Creative writing now makes up a huge proportion of work in English that feeds directly into the business of publishing. The panel would have welcomed a case study that considered the effect on the economy of the numerous small publishers of fiction and poetry who sustain the world of creative writing.

33. Literary publishing additionally confers considerable esteem, and academic authority gives the imprimatur of quality to certain published works. For example, the network of literary prizes propels sales, and thus both the economic impact and cultural 'buzz', of certain titles. In turn this supports artistic talent, promotes cultural excellence and has commercial spin-off.

Research that contributes to national cultural enrichment

34. Active collaboration with public cultural institutions, such as museums, galleries and theatre companies, promotes public understanding and strengthens and preserves the nation's cultural heritage.

35. Broadcasting: as an example, the cultural impact of R4's *In our Time*, the UK's most significant broadcast forum for academic topics, regularly attracts an audience of 2 million listeners and has more podcast downloads than any other R4 programme. It frequently includes contributors from English as well as from other arts and humanities disciplines.

36. Research in English has strong influence on artistic processes and practice, whether by originators or performers. Case studies that could make direct links between the research and the artistic product would have been welcomed.

37. The development of on-line archival materials through original research into neglected figures or areas helps create and strengthen the storehouse of cultural memory.

38. Literary festivals were frequently cited. In citing such examples case studies should extend the emphasis beyond the fact of simply turning up to give a talk. More significant is the bringing together of strands of debate or the co-ordination of high profile events aimed at wide public audiences. The panel recognised that quantifying these activities is less easy to determine. The panel noted that it is advisable to distinguish between research-based `benefit' or 'impact' and 'engagement' – attendance figures alone are not necessarily a valid indicator of impact.

39. Literary journalism: with some notable exceptions, surprisingly little was said in the pilot case studies about the importance of the *TLS*, *LRB*, *Prospect* and other journals that sustain the lifeblood of UK literary culture and that have international appeal and influence on maintaining the UK's prime position globally.

Research that extends the global/national knowledge base

40. The production of research-driven books, editions or other materials for schools and other institutions involved in the knowledge economy frequently results in take-up of such publications as set texts by schools/examinations bodies. Many of these are highly exportable products and have huge global impact.

41. Research in English shapes school curricula and learning methodologies from Key Stage 1 upwards. Examples might be (i) the development and embedding of 'A' level English language or (ii) increased emphasis on interdisciplinary approaches in postgraduate research that leads to new opportunities for extended study and interdisciplinary work at post-16 level.

42. Updating or recalibrating of subject knowledge with significant impact on teachers both in the UK and overseas.

43. The creation and maintenance of free-access websites that present and interpret important texts and/or other cultural materials. A large digitization project (eg. the Wordsworth Centre at Lancaster University) has wide international impact in terms of developing pedagogic materials.

44. English research releases new materials or fresh insights and interpretations that promote and contribute to lifelong learning, a government strategic priority.

Research that contributes to civil society

45. Enrichment and/or promotion of regional communities and their cultural industries: eg. sponsorship and active engagement with local arts organisations that can be demonstrated to have a significant impact on tourism or as educational/visitor attractions.

46. The discovery and promotion of archival materials that have distinctive regional resonance.

Research that contributes to policy change and development

47. Partnerships with public service initiatives and community projects: eg. writing and/or language projects with the probation service, including rehabilitation projects.

48. Discourse analysis that impacts on social policy, eg. advising on socially/ethnically inclusive language usage in medical and policing contexts.

49. Cultural studies/theatre studies that impact on developments in cultural tourism both regionally and in London.

50. Literacy research that aligns with national strategic priorities and influences policy and practice in improving educational attainment amongst disadvantaged groups.

English as a global product

51. English as a subject has huge international appeal and is a valuable export in terms of the above categories in book, electronic and oral forms. There is demonstrable impact in both language and literature research and the panel would have welcomed more cited examples in this category. The panel was impressed by evidence of e.g. (i) research collaboration with the British Council in developing creative writing programmes overseas that build confidence and social cohesion and (ii) research that led to educational and commercial access to English language resources, including the development of corpora for English language teaching and learning.

Appropriate metrics

52. There has been considerable controversy regarding the challenges of finding appropriate measures for the public benefits of humanities research. The English panel felt that it was important that the REF team should provide scope for the 'soft' indicators of impact in English and in other arts and humanities disciplines, i.e. the ways in which cultural products have resonance beyond the immediate moment. At the same time the panel found much hard evidence to support claims of 'impact'. In addition to providing evidence of the high quality of the underpinning research, including research council funding and other forms of peer review, the panel was impressed by:

- Publication and sales figures both in the UK and overseas.
- Funding from public or other charitable bodies, eg. Heritage Lottery.
- Educational products arising from the research together with user figures.
- Evidence of changes in public policy and practice.
- Database and website hits over a sustained period.
- Broadcasting data and other forms of media intervention.
- Consultancies to public or other bodies that utilise research expertise.
- Tourism data, including meaningful audience figures and attendance figures at jointly curated/designed exhibitions.
- Growth in small businesses in the creative industries where there are demonstrable links with the underpinning research.