This presentation has been compiled by the NCCPE to distil the key background information about the REF impact pilot and its conclusions.
Introduction

• This presentation is a compilation of the relevant guidance and background to the REF pilot process, extracted from the various REF publications: http://www.hefce.ac.uk/research/ref/impact/.

• It has been compiled by the NCCPE for the purpose of briefing delegates to the workshop. It considerably simplifies the official guidance and feedback, and draws out content with a particular relevance to the assessment of impact achieved through public engagement. Links to the original documents are provided.

• The key documents which we have drawn on are as follows:
  – Guidance on submissions for institutions participating in the pilot (Nov 2009)
  – Guidance to the pilot expert panels (March 2010)
  – Report of workshops on the impacts of research in the practice-based creative and performing arts, the humanities and social sciences (Dec 2010)
  – Findings of the pilot expert panels (Nov 2010)
  – Feedback from the higher education institutions involved in the pilot (Nov 2010)
  – Decisions on assessing research impact (March 2011)
The REF pilot process

The pilot was launched in autumn 2009, to test the approach through the combined efforts of 29 higher education institutions. The framing for the pilot was as follows:

• The assessment of research impact will be one of three distinct elements of the REF, being judged alongside research excellence and research environment, contributing 25% towards the overall outcome (as compared with 60% and 15% for quality and environment).

• The focus is on socio-economic impacts of any type and in any realm, realised outside the academic community. The impacts should have been evident at some point during, or indeed throughout, a given time window (2005 – 2009) and should relate unambiguously and decisively to one or other aspects of a university department’s research. This high-quality underpinning research must have produced a formal output at some point in the period since 1993.

• 29 institutions will take part, submitting evidence of impact (an impact statement exemplified through impact case studies) to be assessed and graded

• 5 expert panels have been set up in the following five (REF) Units of Assessment (UOAs):
  – Clinical Medicine
  – Physics
  – Earth Systems and Environmental Sciences
  – Social Work and Social Policy
  – English Language and Literature
DECISIONS ON ASSESSING RESEARCH IMPACT

Published in March 2011, a summary of the decisions taken as a result of the pilot process
Decisions on assessing research impact

Published in March 2011, this document outlined the decisions taken in the light of the impact pilot exercise. It reported that the four UK funding bodies have decided that:

• In the REF there will be an explicit element to assess the 'impact' arising from excellent research, alongside the 'outputs' and 'environment' elements.

• The assessment of impact will be based on expert review of case studies submitted by higher education institutions. Case studies may include any social, economic or cultural impact or benefit beyond academia that has taken place during the assessment period, and was underpinned by excellent research produced by the submitting institution within a given timeframe. Submissions will also include information about how the unit has supported and enabled impact during the assessment period.

• A weighting of 25 per cent for impact would give due recognition to the economic and social benefits of excellent research. However, given that the impact assessment in the 2014 REF will still be developmental, the weighting of impact in the first exercise will be reduced to 20 per cent, with the intention of increasing this in subsequent exercises.

• The assessment of research outputs will account for 65 per cent, and environment will account for 15 per cent, of the overall assessment outcomes in the 2014 REF. These weightings will apply to all units of assessment.
Scope of the impact assessment

• The impact element will include all kinds of social, economic and cultural benefits and impacts beyond academia, arising from excellent research, that have occurred during the period 1 January 2008 to 31 July 2013.

• Submitted impacts may be at any stage of development or maturity, so long as some change or benefit beyond academia has taken place during the assessment period. Submissions will be assessed in respect of impacts that have taken place during the assessment period, and not future or potential impacts.

• Impacts or benefits arising from engaging the public with the submitted unit’s research will be included. Dissemination activity – without evidence of its benefits – will not be considered as impact.
Assessment

• The outcomes of the impact assessment will be an ‘impact sub-profile’ for each submission, showing the proportion of the submission at each starred level (1* to 4* and ‘Unclassified’).
• Case studies will be assessed against the broad generic criteria of ‘reach and significance’ of the impact or benefit, and there will be broad generic definitions of the starred levels in the impact sub-profile that reflect differential levels of reach and significance.
• REF panels will be invited to explain in more detail how these criteria will be applied in ways that are appropriate to their disciplines.
• Given that the criteria will be applied in ways that are sensitive to disciplinary differences, the assessment of impact in the REF cannot be used to compare impacts submitted to different UOAs, or to provide a mechanism for comparing the relative impact of disciplines.
• The information about how the unit has supported and enabled impact will be assessed and contribute to the impact sub-profiles. Further guidance on the criteria for this will be developed in consultation with the REF panels.
Submissions

Submissions will include a total of one case study, plus one further case study per up to 10 full-time equivalent staff returned to the REF. Submissions will therefore include a minimum of two case studies.

Case studies will be submitted using a generic template with word limits. This will be designed to enable institutions to clearly explain and demonstrate the impacts through a narrative that includes indicators and evidence as appropriate to the case being made. The template will require information about:

• the underpinning research and evidence of its quality
• the way in which the submitting unit’s research contributed to the impact or benefit
• the nature and extent of the impact or benefit
• references to independent sources that could be followed up (on a sample basis) to verify claims made.

The onus will be on institutions to provide evidence within each case study to demonstrate the particular impact or benefit claimed; REF panels will develop guidance about the kinds of evidence and indicators they would consider appropriate but this guidance will not be exhaustive.

The case studies are intended to show the strongest impacts achieved by the submitted unit’s research. In addition to the case studies, submissions will include information about how, during the assessment period, the unit has supported and enabled the achievement of impact. Assessment of this information will make a significant contribution to the impact sub-profiles. The template for the ‘impact statement’ that was used in the pilot exercise will be re-designed for this purpose.
Involvement of research users

We intend that in all UOAs, expert ‘users’ of research from across the private, public and third sectors will be fully involved in developing the criteria for impact and in assessing the impact element of submissions, alongside academic panel members.

Our approach to involving users is intended to ensure they make a strong input into the impact element across all panels, while making effective use of their time:

• We have appointed research user members to all main panels and sub-panels. These members will be fully involved throughout the criteria setting and assessment phases.

• During 2011 we will run a series of workshops for research users, to gain a wider range of user input into the criteria for assessing impact.

• During the assessment phase, we will recruit a number of additional research users to be assessors on sub-panels, to be fully involved in assessing the impact element of submissions.
We are engaged in ongoing discussions with the Research Councils (through Research Councils UK) to ensure that the overall approach to recognising and encouraging impact is coherent across the dual support system. The above approach to incorporating impact within the REF complements that taken by the Research Councils; the REF will recognise and reward institutions for having achieved impact from their past research, while the Research Councils’ ‘Pathways to Impact’ focus on exploring pathways to realising the impact of new research projects.
Weighting of outputs, impact and environment

- The funding bodies are committed to attaching a significant weighting to impact, ensuring that it is taken seriously by all key stakeholders, and to make the benefits of research explicit and public. Nevertheless the impact assessment in the first REF is likely to be developmental, and the 2014 REF will be the first experience of assessing impact for those UOAs and HEIs that were not involved in the pilot exercise.

- The UK funding bodies consider that the original proposals to weight impact at 25 per cent remain appropriate, giving due weight to the wider benefits of research within the overall assessment framework. However, given that the impact assessment in the first exercise will still be developmental, the weighting of impact in the 2014 REF will be reduced to 20 per cent, with the intention of increasing this in subsequent exercises.

- The UK funding bodies have also decided that for the 2014 REF, outputs will be weighted at 65 per cent, recognising that this part of the assessment is well established, carries widespread confidence, and is at the heart of research excellence. Environment will be weighted at 15 per cent, giving due emphasis to this aspect of the assessment. These weightings will be the same in all UOAs.

- Each element of the assessment (outputs, impact and environment) will result in a ‘sub-profile’, to be combined into an ‘overall excellence profile’ awarded to each submission, based on the above weightings. The ‘overall excellence profile’ will be the primary assessment outcome from the exercise, and we will also publish the sub-profiles. While the assessment outcomes will be produced in the same way for all submissions across the UK, each of the four UK funding bodies will in due course take its own decisions about using the assessment outcomes for funding purposes.
What next?

• This document sets out the broad framework for assessing the impact of research, including generic criteria and standard weightings across all UOAs. Further guidance will be published, as follows:
  – July 2011: We will publish guidance on submissions, setting out the information that will be required in HEIs’ submissions, and the generic definitions and criteria that will apply. This will include guidance on the nature and format for the impact element of submissions, templates, more detailed explanation and definitions than appear in this ‘decisions’ document, as well as details of how the sub-profiles will be combined to form the overall assessment outcomes. [NB the discussion paper we are developing will inform this guidance and will help inform panels developing their panel criteria].
  – January 2012: We will publish the panel criteria and working methods. These will set out how – within the overarching assessment framework – the REF panels will apply the assessment criteria and provide guidance on appropriate kinds of evidence and indicators of impact. The panel criteria will be developed by the four REF main panels with input from their sub-panels. We will publish draft criteria for consultation in July 2011.
This section lists the key information contained in the guidance to institutions who chose to take part in the pilot process

GUIDANCE TO SUBMITTED INSTITUTIONS
REF impact pilot exercise

Guidance on submissions

Introduction

1. This document provides guidance for HEIs making submissions to the REF impact pilot exercise (2009-10). Guidance for the full REF exercise will be developed and published after the conclusion of the pilot exercise, and therefore many aspects of this document may change or develop further before final guidance for the REF is issued. The document sets out:
   - general background and aims of the pilot exercise
   - what information should be submitted by institutions for the pilot exercise
   - guidance on the scope, definitions and criteria
   - how the pilot submissions will be reviewed, and what feedback will be provided to institutions and the sector.

2. This document should be read in conjunction with the relevant sections of our consultation document (HEFCE 2009/38) which outlines our proposed overall approach to assessing impact in the REF. (See in particular paragraphs 58 – 76 and Annex D.)

3. This guidance has been revised following discussions with the pilot institutions and the Steering Group, and takes account of feedback from the REF consultation events that took place from 28 October – 13 November 2009.

4. This document is the final version of the pilot guidance. It will be made available on the HEFCE web-site. Any further clarifications that may be necessary will be provided in separate supplementary notes.

Pilot aims

5. The overall aim of the pilot is to test and develop the proposed approach to assessing impact in the REF, as outlined in HEFCE 2009/38. The following areas will be tested and developed:

Timeframe

• The pilot will cover the following timeframe:
  a. Impacts that have occurred between Jan 2005 and Dec 2009.
  b. The underpinning research could date back to 1993.
Definition and types of impact

For the purpose of the pilot we define **impact** as any identifiable benefit to or positive influence on the economy, society, public policy or services, culture, the environment or quality of life.

It follows that:

- For the purpose of assessing the impact element in the REF we do not include impacts within the academic sphere or the advancement of scientific knowledge (these are covered by the ‘outputs’ and ‘environment’ elements of REF).
- There is no geographic bias - impacts will be assessed against criteria of ‘reach’ and ‘significance’ regardless of the geographic territory in which they occur. We expect that many impacts will contribute to the economy and society within the UK, but equally value the contribution of UK research to international development and global challenges.

Impacts can be manifest in a wide variety of ways and the pilot will be inclusive, including: the many types of beneficiaries (individuals, organisations, communities, regions, and other entities including the natural environment); impacts on products, processes, behaviours, beliefs, policies, practices, and so on; and including the avoidance of harm as well as creating positive benefits.
Menu of indicators

• Annex D of HEFCE 2009/38 provides an initial draft ‘menu of indicators’ (reproduced on the following two slides). This is in no way intended to be exhaustive or restrictive and we expect the pilot exercise to reveal many more types of impact than those suggested by the ‘menu’.
<table>
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<tr>
<th>Type of impact</th>
<th>Possible indicators</th>
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| Delivering highly skilled people | Staff movement between academia and industry  
Employment of post-doctoral researchers in industry or spin-out companies |
| Creating new businesses, improving the performance of existing businesses, or commercialising new products or processes | Research contracts and income from industry  
Collaborative research with industry (for example, measured through numbers of co-authored outputs)  
Income from intellectual property  
Increased turnover/reduced costs for particular businesses/industry  
Success measures for new products/services (for example, growth in revenue)  
Success measures for spin-out companies (for example, growth in revenue or numbers of employees)  
Patents granted/licences awarded and brought to market  
Staff movement between academia and industry |
| Attracting R&D investment from global business | Research income from overseas business  
Collaborative research with overseas businesses |
| Better informed public policy-making or improved public services | Research income from government organisations  
Changes to legislation/regulations/government policy (including references in relevant documents)  
Changes to public service practices/guidelines (including references in guidelines)  
Measures of improved public services (for example, increased literary and numeracy rates)  
Staff exchanges with government organisations  
Participation on public policy/advisory committees  
Influence on public policy debate (for example, as indicated by citations by non-government organisations or the media) |
| Improved patient care or health outcomes | Research income from the NHS and medical research charities  
Measure of improved health outcomes (for example, lives saved, reduced infection rates)  
Measure of improved health services (for example, reduced treatment times or costs, equal access to services)  
Changes to clinical or healthcare training, practice or guidelines (including references in relevant documents such as National Institute for Health and Clinical Excellence guidelines)  
Development of new or improved drugs, treatments or other medical interventions; numbers of advanced phase clinical trials  
Participation on health policy/advisory committees  
Changes to public behaviour (for example, reductions in smoking)  
Application of solutions to sustainable development (new technologies, behavioural change and so on) |
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<tbody>
<tr>
<td>Progress towards sustainable development, including environmental sustainability</td>
<td>Measures of improved sustainability (for example, reduced pollution, regeneration of natural resources)</td>
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| Cultural enrichment, including improved public engagement with science and research | Increased levels of public engagement with science and research (for example, as measured through surveys)  
Changes to public attitudes to science (for example, as measured through surveys)  
Enriched appreciation of heritage or culture (for example, as measured through surveys)  
Audience/participation levels at public dissemination or engagement activities (exhibitions, broadcasts and so on)  
Positive reviews or participant feedback on public dissemination or engagement activities |
| Improved social welfare, social cohesion or national security | Application of new ideas to improve social equity, inclusion or cohesion  
Measures of improved social equity, inclusion or cohesion (for example, improved educational attainment among disadvantaged groups, or increased voting rates in lower participation communities)  
Application of new security technologies or practices |
| Other quality of life benefits | Please suggest what might also be included in this list |
The intention is to identify and assess economic and social benefits or outcomes that are evident during the period 2005-09. Inputs that lead to benefits or outcomes may well need to be explained in order to demonstrate how the impact came about, but these are not the focus of assessment.

Nevertheless, we recognise there are often ‘interim’ outcomes at several stages along the journey from research to the eventual impacts. In some areas, the time-lags are such that only these ‘interim’ impacts can be captured within the timeframe for the pilot; or the nature of the impact is such that only the ‘interim’ impacts can be clearly evidenced or attributed to the underpinning research. Thus ‘interim’ impacts are included within the scope of the pilot and may be submitted as case studies.
An impact statement

This will provide an overview of the unit’s interactions with research users (broadly defined) and impacts achieved during the 2005-09 period. This is intended to provide panels with evidence of the breadth of the unit’s contributions to society or the economy; to be illustrated in more detail through the case studies. We expect the impact statement will be used by panels to inform the impact sub-profile.
Template for impact statement

| HEI name: |
| UOA name: |
| Filename: |

1. During the assessment period, what range of opportunities have been identified to apply, exploit or build on the unit’s research findings?

2. Describe the range and types of interactions with research users (or potential users) during the assessment period.

3. Outline the full range and significance of impacts or benefits occurring during the assessment period, that the unit’s research activity has contributed to.

4. What activities are undertaken currently within the unit to build on research to secure future impacts or benefits?
Case studies

Each case study should be completed using the generic template (see next slide). This is designed to capture:

• The nature and extent of a specific impact occurring during 2005-09. This should include a clear explanation of both the impact’s ‘reach’ (how widely felt it was) and its ‘significance’ (how much difference it made to the beneficiaries) during the assessment period.

• An outline of specific research-based activity within the unit that contributed to the impact, and an explanation of how it made a contribution.

• Details of the underpinning research, and justification that this was of high quality.

• Evidence to support or verify the claims made.
## Original case studies template

| HEI name: |  
| UOA name: |  
| Filename: |  
| Confidential?: |  

**Title of case study:**

1. Describe and provide evidence of the specific benefit or impact (maximum 500 words). Include:
   - explanation of the nature of the impact in terms of its reach and significance
   - details of when the impact occurred
   - evidence of the above, including appropriate indicators.

2. Explain how the unit's research activity contributed to the impact (maximum 500 words). Include:
   - an outline of what the underpinning research was, when this was undertaken and by whom (references should be provided in section 4)
   - how the research (or other research-based activity) influenced or contributed to the impact
   - any efforts made by the institution to exploit or apply the research to secure the impact
   - acknowledgement of any other significant factors or contributions to the impact.

3. Provide references to:
   - key research outputs that underpin the impact – and state how the research was peer reviewed (whether at grant application or publication stage) or otherwise quality assured
   - external sources (reports or documents, or contact details of a user), that could corroborate the information provided in sections 1 and 2 above.
Revised template

• Following the pilot, the template was revised. The published case studies were re-written to fit the new template

• ‘The main change has been to re-order the template to follow a narrative that starts with the research, and then explains the impact or benefit and how the research made the contribution. This does not imply a linear model of research leading to impact; panels have fed back that in general it would be easier to assess a narrative that first explains the underpinning research (even if the impact happened in parallel to the research taking place)’.
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<th><strong>HEI name:</strong></th>
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<tr>
<td><strong>UOA name:</strong></td>
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<td><strong>Confidential?:</strong></td>
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<tr>
<td><strong>Title of case study:</strong></td>
</tr>
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</table>

1. **Short summary of the case study (Maximum 150 words)**
   
   *See guidance paragraph 7 before completing*

2. **Underpinning research (Maximum 500 words)**
   
   Provide information about the research and the specific insights that underpin the impact or benefit claimed in this case study.

   *See guidance paragraphs 8-9 before completing*

3. **References to the research**
   
   Provide references to key research outputs, any key research grants, and evidence of the quality of the research (Maximum of 10 references).

   *See guidance paragraphs 10-13 before completing*

4. **The contribution, impact or benefit (Maximum 750 words)**
   
   Describe the impact or benefit and how the research contributed to this

   *See guidance paragraphs 14-17 before completing*

5. **References to corroborate the contribution, impact or benefit (Normally maximum of 10 references)**

   *See guidance paragraphs 18-19 before completing*
Guidance for the revised case studies

HEFCE provided guidance to accompany the revised case study template:

When revising the case studies, HEIs should note that they should present information in such a way that would allow panels to make robust judgements based on the evidence presented to them. The case study narrative and supporting evidence should be sufficiently explicit, transparent and self-contained that the panel can assess the impact without having to make inferences, gather additional material, rely on members’ knowledge, or follow up numerous references.

In particular HEIS must ensure that:

a. The connection between the underpinning research and the impact is explicitly explained and evidenced, even when the link is not simple or direct, with clear explanations of:
   i. the specific research insights or findings that underpin the claimed impact, contribution or benefit
   ii. the process through which the research came to have an influence, benefit or impact
   iii. the specific nature of the contribution made by this research (and where appropriate it should be
b. The quality of the underpinning research is evidenced in such a manner as to clearly show that it meets the expected quality threshold. For example by referring explicitly to peer review or other quality assurance processes.

   c. References to research and external sources should be provided to assure the panel about the underpinning research and to enable corroboration of what is set out in the case study – not as a source of further information for panels to follow up in order to understand the narrative or make the assessment.

   d. Clear details are provided to show that the impact claimed occurred between 2005 and 2009 and that the underpinning research was published no earlier than 1993.
Assessment criteria

Case studies will be graded on a five point scale against criteria of the ‘reach’ and ‘significance’ of the impact. The draft definitions of the levels (to be refined by the panels through the pilot exercise) are:

- **Four star Exceptional**: Ground-breaking or transformative impacts of major value or significance, relevant to a range of situations have been demonstrated
- **Three star Excellent**: Highly innovative (but not quite ground-breaking) impacts such as new products or processes, relevant to several situations have been demonstrated
- **Two star Very good**: Substantial impacts of more than incremental significance, or incremental improvements that are wide-ranging have been demonstrated
- **One star Good**: Impacts in the form of incremental improvements or process innovation, of modest range have been demonstrated
- **Unclassified**: The impacts are of little or no significance or reach. Or the links between the impacts and excellent research, or a significant research-driven contribution by the submitted unit, have not been demonstrated
Reach and significance

Our initial view is that there are two key criteria for assessing the extent of the impacts:

• their ‘reach’ (how widely the impact has been felt)
• and ‘significance’ (how much difference was made to the beneficiaries).
Threshold criteria

In addition to assessing the ‘reach’ and ‘significance’ of the impact described in each case study and grading this on the five point scale, panels will be asked to make several ‘threshold’ judgements about each case study, as follows:

• i. Time of impact: That the impact occurred – in the particular form being described – during the pilot assessment period (Jan 2005 – Dec 2009).

• ii. Contribution by the institution: That specific research-based activity within the institution made a significant contribution to achieving the impact.

• iii. Quality of underpinning research: That underpinning research, which produced at least some output(s) since 1993, met a sufficient standard of rigour and originality.

• iv. Evidence: That there is sufficient evidence to support the above judgements (about the extent of the impact and the threshold criteria).

Panels will be guided to rate a case study as ‘Unclassified’ if it does not meet one or more of these thresholds.
Threshold: quality of underpinning research

- Each case study should briefly outline and provide references to underpinning research outputs, at least some of which were published or made available since 1993.

- We wish to develop a means of assuring the quality of the underpinning research that does not require the expert panels to review substantial numbers of outputs. We therefore ask submissions to include justification that the research met a high standard of rigour and resulted in original findings. This should involve brief statements of how the research has been peer reviewed (including at grant application and publication stages) or any other external quality assurance process that may be applicable. We recognise that in some cases, for example grey literature or research commissioned by business or government, there may not have been formal peer review; panels may need to review at least some of these to satisfy themselves that the quality threshold has been met.
Evidence of impact

A key challenge in assessing essentially qualitative information will be to ensure that the evidence presented to panels is sufficiently robust and can be relied upon for the assessment. Ultimately the expert panels will make judgements about the credibility of the information presented to them. We also ask pilot submissions to:

- Include indicators as supporting evidence where appropriate; in principle these are verifiable or auditable.
- Include references, where appropriate, to external sources of verification. This could be references to external reports or other information in the public domain; or contact details of research users that could potentially be asked to corroborate claims made.5

Panels may seek further evidence to corroborate claims by raising ‘audit’ queries via HEFCE. For the pilot, we expect to pursue these on a sample basis spread across the institutions. The aim will be to understand the nature and scope of underpinning evidence and audit processes that might in future be required by the REF. We will not expect institutions to respond in detail to audit queries in the pilot exercise.

Within the case studies, institutions are encouraged to include appropriate indicators to help describe and provide supporting evidence of the impact. These could be indicators relating to:

- the impact’s reach or significance (outcome indicators), or
- the unit’s contribution to the impact (process indicators).
- (For example, the number of practitioners influenced by new guidelines indicates the reach of the impact; whereas participation on advisory committees provides evidence of the unit’s contribution to the guidelines.)

Institutions are invited to include any indicators that are appropriate to the context of each case study. The draft ‘common menu’ provides some initial ideas but is in no way intended to be comprehensive. In particular, the menu includes relatively few indicators relevant to arts and humanities research; this is partly because cultural and other impacts typically generated by arts and humanities research may be less amenable to indicators, and partly because such indicators are yet to be developed. We expect that the extent to which indicators are used within the assessment will vary between disciplines.

Note that indicators need not necessarily be quantitative; they should, however, be auditable in principle.
This section details the key information contained in the guidance to the expert panels.

GUIDANCE TO PANELS
Research Excellence Framework
Impact pilot exercise

Guidance to expert panels
HEFCE, 30 March 2010

Introduction

1. HEFCE on behalf of the four UK higher education funding bodies is piloting the assessment of the social and economic benefits of research, as part of the Research Excellence Framework (REF) – the future arrangements for assessing and funding research in UK higher education institutions (HEIs).

2. This reflects policy aims in all parts of the UK to maintain and improve the achievements of the HE sector both in undertaking ground-breaking research of the highest quality and building on this research to achieve demonstrable benefits to the wider economy and society. Our starting point is that an excellent department or unit should meet the highest standards in both these elements, and should be rewarded for delivering strong impacts by building on their portfolio of excellent research activity.

3. In a recent consultation exercise on the REF,¹ we proposed that the impact of research should be assessed as a distinct element in the assessment, contributing 25% towards the overall outcomes (with the quality of research outputs contributing 60%, and the vitality of the research environment contributing 15%). Consultation respondents broadly supported the inclusion of an explicit assessment of impact, subject to the development of a robust method for assessing impact, and an appropriate weighting for this element. Respondents also provided a wealth of feedback on the challenges involved in defining, evidencing, attributing and assessing impact.²

http://www.hefce.ac.uk/research/ref/impact/guidance_panels.pdf
Guidance to panels

This reflects policy aims in all parts of the UK to maintain and improve the achievements of the HE sector both in
• undertaking ground-breaking research of the highest quality and
• building on this research to achieve demonstrable benefits to the wider economy and society.

Our starting point is that an excellent department or unit should meet the highest standards in both these elements, and should be rewarded for delivering strong impacts by building on their portfolio of excellent research activity.
Principles of assessing impact

We aim through the pilot exercise to develop an approach to assessing impact that is underpinned by the following principles:

• There should be a wide definition of impact, including benefits to the economy, society, culture, public policy and services, health, the environment, international development and quality of life. Academic impact (intellectual influence and contribution to advancing the discipline) will not be included in this part of the REF assessment as it is fully reflected in the assessment of outputs and environment.

• REF should enable excellent research in all disciplines to demonstrate impacts according to criteria, definitions and indicators that are appropriate to research in each discipline-group; and impacts should be assessed within (not between) each panel.

• REF should only recognise and reward impacts arising from high quality research. It should however recognise the benefits arising from all types of high quality research including applied, translational, basic, blue-skies and practice-based research. In particular the REF should not introduce any disincentive to long-term basic or curiosity-driven research (which are widely believed to generate the most fundamental impacts).

• REF should not seek to predict future impacts; it should assess impacts that have already occurred, underpinned by research over a sufficiently long timeframe to allow the impacts to become evident.
Principles, cont’d

• REF should not require or imply that all submitted researchers should demonstrate the impact of their research. The assessment should be made in respect of whole submissions, each covering a sufficiently broad portfolio of activity, focusing on a limited number of examples of the strongest impacts.

• Impact should be assessed against equally demanding standards to the assessment of output quality.

• The outcomes of the assessment of impact should be an ‘impact profile’ for each submission; these should be the product of expert panels’ judgements based on an appropriate mix of qualitative and quantitative evidence.

• Representatives of the users and beneficiaries of research should make a substantive input into the assessment of impact, both in terms of developing the criteria and undertaking the assessment, working in partnership with academic members of the expert panels.

• Multiple institutions’ or units’ contribution to impacts should be recognised, whether through collaborative or cross-disciplinary research, research in one discipline that informed work in another leading to impact, or several units’ independent contributions to building up an influential body of knowledge.

• The requirements on institutions to provide evidence should involve the minimal burden that is necessary to enable panels to make robust assessments.
Definition of impact

Our initial definition of impact is any benefit to the economy, society, culture, public policy and services, health, the environment, international development and quality of life. Some points to note are that:

• Academic impact (intellectual influence and contribution to advancing the discipline) is not included in this part of the assessment.

• Impacts can occur in any geographic territory, whether a local area, region, devolved nation, the UK or internationally, and these are not regarded in any hierarchy of importance.
Assessment criteria and level definitions

This section describes our initial views about the assessment criteria and generic definitions of the levels in the five-point scale. Panels are expected to refine these, especially at their first meetings.

The intention is to assess the extent of the impacts to which each institution’s research has contributed. Our initial view is that there are two key criteria for assessing the extent of the impacts:
• their ‘reach’ (how widely the impact has been felt)
• and ‘significance’ (how much difference was made to the beneficiaries).

Our initial view is that the each case should demonstrate that the institution’s research made a significant contribution to the impact, and that this is treated as a ‘threshold criteria’; once ‘passed’ it does not affect the score awarded to the case study. However, panels should consider whether, and to what extent, the level of the HEI’s ‘contribution’ towards the impact should influence the score.
When assessing the submissions, panels will need to:

a. Score each case study on a five point scale, in terms of ‘reach’ and significance’ (or the revised criteria developed by the panel).

b. By scoring the case studies, panels will build up an impact profile for each submission, that shows the proportion of each submission achieving each level in the scale.

c. Panels should then take into account the wider ‘impact statements’ in determining the final impact profiles for each submission.

Our initial view is that in order to achieve Four star (exceptional) or Three star (excellent) impacts, a case study should demonstrate a high level of both ‘significance’ and ‘reach’, although further down the scale, either one of these could take precedence, as appropriate to the particular impact. Initial, generic definitions for these levels (which are intended to reflect ‘reach’ and ‘significance’ in this way) are as follows:
• **Four star Exceptional**: Ground-breaking or transformative impacts of major value or significance, with wide-ranging relevance have been demonstrated

• **Three star Excellent**: Highly significant or innovative (but not quite ground-breaking) impacts relevant to several situations have been demonstrated

• **Two star Very good**: Substantial impacts of more than incremental significance, or incremental improvements that are wide-ranging have been demonstrated

• **One star Good**: Impacts in the form of incremental improvements or process innovation, of modest range 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.
Each submission will comprise the following evidence:

- **Contextual information:** Information about the size of the submitted unit (in terms of numbers of research active staff) and its main areas of research activity.

- **An impact statement:** This will provide an overview of activity by the unit as a whole to build on its research to achieve wider impacts, and an outline of the impacts that have occurred between 2005-9. (Word limits apply to the impact statement, scaled according to the number of research active staff.)

- **Case studies:** The case studies will illustrate and provide evidence of specific examples of impact that the unit’s research has contributed to. A total of one case study will be provided for every ten members of research active staff (though we have asked institutions to provide a minimum of two case studies in each submission). The impacts described must have occurred during 2005-09, though the underpinning research may have been undertaken previously, but no earlier than 1993.

- Data about **research income** from ‘users’: A profile of research income from key categories of ‘research users’ will be provided, as a proxy indicator of impact for the unit as a whole. Other quantitative indicators of impact will be provided as supporting evidence within the impact statements and case studies.
Threshold criteria

The initial criteria for scoring the case studies focus on the extent of the impact that has been demonstrated (in terms of ‘reach’ and ‘significance’). In addition to this, panels should make several ‘threshold’ judgements about each case study, to determine whether it is eligible:

• i. Time of impact: That the impact occurred – in the particular form being described – during the pilot assessment period (Jan 2005 – Dec 2009).

• ii. Contribution by the institution: That specific research-based activity within the institution made a significant contribution to achieving the impact.

• iii. Quality of underpinning research: That underpinning research, which produced at least some output(s) since 1993, met a sufficient standard of rigour and originality to be considered high quality research.

• iv. Evidence: That there is sufficient evidence to support the judgements about the extent of the impact and the threshold criteria.

Panels should rate a case study as ‘Unclassified’ if it does not meet one or more of these thresholds. These threshold criteria are explained further below.
Threshold: contribution by the institution

There are a wide variety of ways in which research creates or contributes to impacts; the processes can be complex, involving many influences over a long period of time. Hence a key issue for the pilot is to establish how to ‘attribute’ impacts to submitted units for the REF, and to identify what kinds of activity within an institution should count as contributing towards impact.

For the purpose of the pilot exercise, submissions must show that specific research-based activity within the institution made a significant contribution to achieving the impact. This ‘research-based activity’ must be either:

• a. Underpinning research that was undertaken by staff within the institution. This could be any type of research including basic, practice-based, applied or translational research (that may have built on work done previously or elsewhere) and research undertaken in collaboration with other institutions or organisations.
• b. Other research-based activity undertaken by research staff at the institution which drew or built substantially on their own research. This could include, for example, the contribution of an individual as an expert advisor on a committee, where this was based to a significant degree on their personal research record.

In either case:
• the ‘research-based activity’ must have been undertaken within the institution making the submission (but need not have been submitted to any previous assessment exercise, or have been undertaken by staff submitted to an exercise)
• the research or the staff involved should reasonably be associated, albeit retrospectively, with the Unit of Assessment to which the submission is being made
• the underpinning research must meet the threshold of rigour and originality, and have produced an original output (or outputs) during 1993 or later.

Ideally the institution would also have been involved in exploiting the research to achieve impact, but need not necessarily have done so. They may have contributed to the impact solely by undertaking the research and making the findings available.

The specific contribution of the unit’s research activity must be a ‘significant’ contributing or influencing factor in realising the impact. In principle, this means that the impact would not have occurred, or would have been substantially reduced, had it not been for this activity.

More than one institution or unit can submit the same impact, so long as each institution or unit made a significant contribution, in line with the above guidance. In cases where there is a wide range of contributing research (for example, a policy change based on a body of evidence built-up over a period of time, undertaken by numerous institutions), an institution would need to show that its particular contribution was decisive or had a distinct influence.
The policy intention is that impacts must be underpinned by high quality, rigorous and original research. Our initial definition of this is research that broadly meets the standard for 2* research outputs in the 2008 RAE - recognised internationally - in terms of rigour and originality. (The ‘significance’ aspect of quality need not be assured for research cited in the case studies, as this is reflected by assessing the impact of the research.)

Each case study will provide references to underpinning research outputs. We wish to develop a means of assuring the quality of the underpinning research that does not require the expert panels to review substantial numbers of outputs. We have therefore asked submissions to include justification that the research was rigorous and resulted in original findings by stating, for example, how the research was peer reviewed. We recognise that in some cases, for example grey literature or research commissioned by business or government, there may not have been formal peer review; panels may need to review at least some of these to satisfy themselves that the quality threshold has been met.

Where panel members wish to access the cited research outputs, they should seek to do so through their own means, in the first instance. If necessary, panel members should seek assistance from the panel secretary to access the outputs.
Verification of evidence

A key challenge in assessing the impact of research will be to ensure that the evidence presented to panels enables robust assessment. The panels will need to make judgements about the credibility of the information presented to them, but there may be a need for panels to query some of the evidence or seek external corroboration of claims made in submissions. We propose to test this in the pilot exercise in two ways:

a. Audit queries: Panels may raise ‘audit’ queries through the panel secretary, to seek information from the submitting institution to verify that a case study is eligible (for example, to verify that the underpinning research was undertaken within the submitting institution).

b. External corroboration: Pilot HEIs have been asked to include references, where appropriate, to external sources to corroborate claims about impact, or the institution’s contribution towards an impact. These could be references to external reports or other information in the public domain; or contact details of research ‘users’ that could potentially be contacted and asked to corroborate claims made. Panels could follow up references to external information, or request that the panel secretary contacts the ‘users’ to corroborate claims made in the case study.
This section distils relevant learning from three workshops held in December 2010

WORKSHOPS ON THE IMPACTS OF RESEARCH IN THE PRACTICE-BASED CREATIVE AND PERFORMING ARTS, THE HUMANITIES AND SOCIAL SCIENCES
Research Excellence Framework

Workshops on the impacts of research in the practice-based creative and performing arts, the humanities and social sciences

December 2010

Summary of key points

Introduction

1. In summer 2010 the Research Excellence Framework (REF) team ran three workshops to supplement the work of the impact pilot exercise. This document provides a high-level summary by the REF team of the key points we have collated from the plenary sessions and break-out group discussions held at the workshops.

2. The impact pilot exercise was undertaken during 2010 to test and develop the proposals for assessing impact in the REF. It covered five units of assessment across the disciplinary spectrum. To supplement this work, we ran three workshops to develop our understanding of the diversity of audiences, impacts and potential indicators more widely across the arts, humanities and social sciences.

3. The workshops focused in turn upon: the practice-based creative and performing arts; the humanities; and selected social sciences. There are further details on each of these in Annexes A, B and C respectively.

4. A mix of senior researchers from the disciplines covered and research users were invited to participate in each event. The academic participants were selected from nominations made by the key subject associations for each discipline. The research users represented a selection of organisations that were invited to participate.

5. The workshops were run between June and September. They consisted of both plenary and break-out sessions, and focused on:

   • audiences, users, and beneficiaries of research in these disciplines
   • the nature and range of benefits and impacts
   • evidence and indicators of impact
   • other challenges in defining and assessing impact.

http://www.hefce.ac.uk/research/ref/impact/workshops_impact_research.pdf
In summer 2010 the Research Excellence Framework (REF) team ran three workshops to supplement the work of the impact pilot exercise. The workshops focused in turn upon: the practice-based creative and performing arts; the humanities; and selected social sciences. The workshops focused on:

- audiences, users, and beneficiaries of research in these disciplines
- the nature and range of benefits and impacts
- evidence and indicators of impact
- other challenges in defining and assessing impact.

The subject associations involved co-ordinated the submission of abbreviated example case studies for use at the workshops. Each case study gave a brief description of: the research that underpinned the impact; the nature of the impact arising, the main beneficiaries and the way they benefitted; and an indication of the types of evidence that could be provided to support this. Representative selections of the case studies were circulated to participants in advance of the workshops, to inform the discussions.
Audiences, users, and beneficiaries

- Participants explored the types of audiences and beneficiaries of research in the disciplines covered at the workshops through considering the examples presented in the abbreviated case studies and through discussing their own experiences of impact in clustered groups. The **wider public**, conceived of broadly from regional to international, were generally identified as the core beneficiaries, although a range of ‘**intermediary**’ groups were also identified.

- It emerged that the wider benefits arising from research in the creative and performing arts are created through close, iterative relationships with practitioners and industry. The integration with the professional community was felt to be very close in performance research. In this respect, ‘**creative partnerships**’ was seen as a useful term for the intertwined relationships between university researchers and ‘intermediaries’, so avoiding a forced distinction between ‘**researchers**’ and ‘**users**’.

- At the social sciences workshop, it was recognised that the benefits of policy research, particularly that which is critical of government policy, often benefitted the public in terms of **informing public debate**, as well as contributing to evidence-based policy-making.
The nature and range of benefits and impacts

- It was evident from the presentations, discussions and abbreviated case studies used at the workshops that research from across the disciplines covered contributes to a wide range of benefits to society. Of this range, it was clear that cultural, policy and quality of life impacts are the key, broad types of benefit, often achieved by engaging the public and stimulating public debate.

- A common way of describing public engagement activity in the case studies was to detail the dissemination of the research. Examples of this included details of public conferences, performances or screenings, as well as numbers of visitors to museum exhibitions or to a web-site, or audience figures. These details were viewed as important contextual information for the impact described. However, they were not seen as sufficient evidence of impact as they did not in themselves demonstrate what benefit or change resulted from the dissemination activity.

- Participants considered the assessment criteria ‘reach’ (how widely the impact was felt) and ‘significance’ (how transformative it was). In relation to reach, it was felt that information such as audience sizes and viewing figures did not always provide sufficient information on the reach of the impact. It was also noted that reach should not be simply equated with geography. It was felt that international dissemination did not necessarily reflect an international impact, and that highly significant impacts could be achieved within small areas. To this end, it was suggested that broader criteria may be needed to recognise significant benefit in a small field.

- The workshops discussed case studies based on research with varying breadth. This ranged from the benefits arising from the general research focus of department, to the collaborative partnerships between academia and industry or cultural institutions, to the impact of an individual scholar’s research. In all cases, it was thought necessary that the case study outlines both a distinct research contribution and clearly described impact(s). Examples describing the ‘routine’ engagement activities of the department or research centre were not thought to demonstrate a high quality of impact and should be discouraged.

- It was recognised that a number of examples of impact discussed at the workshops centred upon research that was commissioned for a particular purpose, or upon research that achieved impact due to its topicality or incidental public interest.

- Demonstrating both the excellence of the underpinning research and the link between the research and the benefit described was identified as a key necessity for case studies.

- With regard to the vocabulary used to conceive of research impact, it was felt that a range of terms could be usefully employed. ‘Benefit’ was seen as a meaningful way to discuss the contribution of research to wider society, particularly at the humanities workshop, and more generally where the impact was achieved through public engagement.

- There was a perception that the introduction of impact in the REF may encourage researchers to focus more on popular topics or applied research that could potentially achieve a ‘quick impact’.
Evidence and indicators

• The narrative approach was seen as a suitable means to demonstrate impact across the range of benefits to which research contributes in these disciplines. The abbreviated case studies allowed participants to broadly evaluate the effectiveness of the types of evidence provided and to explore certain issues in more depth.
• One central point for discussion concerned evidencing cultural change or benefit. Although it was recognised that figures could be given to indicate the extent of dissemination, it was more challenging to demonstrate the resulting impact or benefit (for example, improved cultural appreciation or improved public understanding). The case studies used at the workshops included the following types of evidence of change or benefit:
  – visitor/audience feedback
  – critical acclaim (such as reviews by critics, prizes and awards)
  – testimony from collaborators or intermediaries (for example museum curators)
  – sustained audiences over an extended period of time.
• Another central point concerned evidencing the contribution of research to policy-making and public debate. It was recognised that it could be difficult to corroborate this, because policy documents and indicators of public debate (for example media coverage) often do not cite research. Where corroborations may rely on user testimony, a further challenge was recognised in cases where the key policy-makers have moved on.
• Further points raised on the issue of evidencing impacts included: concern about the need to collect supporting data retrospectively, such as visitor numbers from museums; a recognition that quantitative data would need to be properly contextualised to understand its significance; and an emphasis that the guidance should encourage the submission of relevant evidence only, to avoid the over-submission of evidence for which the assessment panels would have no use.
Other challenges

• It was noted that the case study approach may not be able to adequately capture the longer-term impacts of cumulative research, or where research makes an on-going contribution to a wider body of impacts.

• There was some concern expressed about the effect of introducing the impact element upon small departments, and the implications for lone researchers and early career researchers were queried.

• It was recognised that it would be important to find ways of evidencing the impact of research that was critical of public policy.

• Issues of attribution were identified in collaborative research. It was felt that it would be important to ensure collaborative and interdisciplinary research is not disadvantaged by the assessment of impact.
FINDINGS / FEEDBACK FROM THE REF PILOT
Research Excellence Framework impact pilot exercise: Findings of the expert panels

A report to the UK higher education funding bodies by the chairs of the impact pilot panels

http://www.hefce.ac.uk/research/ref/pubs/other/re01_10/
Key findings

– HEIs in the pilot provided evidence of a wide variety of impacts arising from their research. This provided a unique collection of evidence that made explicit the social and economic benefits of research from each of these disciplines.

– Expert review of case studies is an appropriate means for assessing impact. Using expert judgement the panels were able to assess and differentiate between case studies and to produce impact profiles of the kind that would be useable in the REF.

– The case study approach should be developed further for use in the REF and the panels recommend a number of improvements to the process to ensure the assessment will be sufficiently robust for full implementation. These include changes to the template for case studies, changes in the use of the wider ‘impact statement’, improvements to the guidance provided to HEIs and improvements in the quality of evidence provided by HEIs.

– Although the pilot covered five disciplines with very different kinds of impacts, the broad findings in terms of the feasibility and method of assessing impact were similar. A common broad approach for all disciplines based on case studies should be possible, with generic criteria and the same weighting for impact. Within this common approach REF panels should develop guidance as appropriate to the nature of impacts arising from research in their discipline.

– A robust assessment of impact should carry a weighting in the REF sufficient to ensure it is taken seriously by all stakeholders. A lot has been learned from the pilot exercise about how to assess impact robustly, but the assessment in the first full REF will still be developmental, and it will be important to carry the confidence of the academic community. In light of this the weighting of impact in the REF should be considered carefully. One option would be for impact to have a lower weighting than 25% for the 2014 REF, with a clear intention to increase this for future exercises as the method beds down.
Types of impact

• Panels received a diverse range of case studies reflecting a wide variety of types of impact:
  – **Medicine**: Impacts primarily related to 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); and economic benefits (through start-up companies and medical technology, contributing to the pharmaceutical industry and reducing the costs of healthcare).
  – **Physics**: impacts primarily related to the development of products and services, although a significant number reflected impact deriving from public engagement, and some focused on policy impact.
  – **ES&ES**: impacts included influence on policy development and implementation relating to the environment and climate change (often with international scope); development of processes, services and technologies relating to conservation, environmental management, monitoring and risk assessment; and product and service development (particularly in the oil, energy and utilities sectors).
  – **SWSP**: case studies primarily centred 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.
  – **English**: impacts included contributing to the creative economy, contributing to national cultural enrichment, extending the global/national knowledge base beyond academia, contributing to civil society, and influencing policy development.
Recommendations

A number of recommendations were made, under four headings. This summary lists those of most relevance to public engagement:

• *Recommendations 1 - 4: Defining research impact*
• *Recommendations 5 - 8: Evidence of impact provided by institutions*
• *Recommendations 9 - 19: The assessment of impact by REF panels*
Recommendation 3 and 4

• The REF should include benefits arising from engaging the public with research. Submissions should:
  – Show a *distinctive contribution of the department’s research* to that public engagement activity.
  – Make a case for the *benefits* arising from the public engagement activity. This must go beyond showing how the research was disseminated.

• REF panels should develop more detailed guidance on what constitutes impact in their disciplines. This should include guidance about the types of impacts and indicators anticipated from research in their disciplines, expanding on the initial list provided by the funding bodies, and guidance on what constitutes ‘interim’ impact. The guidance should be flexible enough to allow for a wide variety of impacts and indicators, including impacts that panels may not anticipate.
Recommendation 6

To ensure that institutions provide case studies that enable panels to make robust judgements:

– The case study template requires significant revision to encourage a coherent narrative, explaining what research was undertaken, what the claimed benefits or impacts were, and how the research was linked to the benefits.

– Case studies should contain all the relevant information and evidence required by panels to come to a judgement; panel members should not be expected to make assumptions or undertake further work to gather evidence required in making these judgements. References should be provided only for verification purposes, not as a means for panels to seek further information.

– **Indicators of impact** should be included within the narrative as supporting evidence where relevant. REF panels should develop guidance about the kinds of indicators they would expect to see, but this guidance should not be restrictive. Case studies should include indicators that are meaningful, contextualised and relevant in demonstrating the particular case.

– Individual case studies in the pilot varied in terms of the breadth of research and/or range of benefits covered by each. This flexibility should be retained, but the highest scoring cases in the pilot were those that provided a coherent narrative with evidence of specific benefits. Case studies should not cover a series of disconnected activity or list a wide range of benefits without providing details and evidence.
Recommendation 8

- In addition to assessing case studies, REF panels should assess the unit’s strategic approach to impact and how the institution supports researchers in achieving impact. A clear explanation of this should be assessed as a distinct part of the ‘environment’ element of the REF and this will replace the separate impact statement as used in the pilot. This information, and details of how the case studies fit into the unit’s research activity as a whole, should also be provided as contextual information to those members of the panel assessing the impact case studies.
Recommendation 9

- The two criteria for assessing impact – ‘reach’ and ‘significance’ – are appropriate and should be broadly applicable across all panels. The REF panels should have scope to elaborate on how these criteria may be interpreted at discipline level. REF panels should apply judgements holistically to each case study, and there should be no simple ‘hierarchy’ of reach based on a geographic scale.
Recommendation 12

• Given that REF panels will need to interpret the criteria in ways that are appropriate to research in their respective UOAs, the assessment of impact in the REF can only be used to compare the impact achieved by submitted units within each UOA. The REF cannot make comparisons of the impact of research units submitted to different UOAs, nor provide a mechanism for comparing the relative impact of disciplines.
Recommendation 16 & 17

• Robust mechanisms will be required to verify the submitted evidence. Case studies should normally include details of key ‘users’ who could potentially be contacted, and/or references to other independent sources. These should be for audit purposes only, to be followed up on a sample basis to verify specific claims made in the case study. Where the panel judges that claims have not been sufficiently verified through an audit, the case study should be awarded a grade of ‘unclassified’.

• It is essential to include research users on all REF panels to provide the right balance of expertise in assessing impact and to ensure stakeholder confidence in the outcomes.
General insights

• We considered the wider consequences of incorporating impact in the REF:
  – Institutions in the pilot provided evidence of a wide variety of impacts. For each discipline this provided a unique subject-wide view of the socio-economic benefits of research. We believe that incorporating impact in the REF will help the sector to make explicit the benefits of research, communicate these more publicly, provide compelling evidence to the Government, and improve public understanding of research and its benefits to society.
  – The impact element in the REF has the potential to create a number of positive incentives, including:
    • Encouraging collaboration between HE and industry, the public sector and the third sector.
    • Encouraging institutions to support their researchers in more fully realising the wider benefits of the research they undertake. This should include support for realising the benefits from ‘pure’ or ‘basic’ research, as well as supporting research with more immediate potential application.
    • Providing a level playing field in the REF for all types of research.
Insights cont’d

– We considered the potential unintended consequences of introducing the impact assessment. Some care will need to be taken to avoid the following:
  
  • Inadvertently encouraging researchers to focus on research with more direct short-term impact, as opposed to curiosity-driven research with uncertain or longer-term impact. Institutions will need to guard against adopting a short-term strategy.
  
  • Potential discouragement of collaborative research. There are mechanisms for avoiding this problem when assessing research outputs, which it should be possible to apply to the impact element.
  
  • Early career researchers are less likely to have achieved impact, given the time-lags involved, and departments or units with a very high proportion of early career researchers could therefore be at a disadvantage.
  
  • Small departments or units may face difficulties in responding either because they would have fewer examples to draw on, or because the results could be more variable than for larger units. These issues need further consideration.
  
  • Newly established departments or units could find it difficult to demonstrate impact historically.
Indictors of impact, and the language used

• The panels felt it would be helpful to develop an overarching broad ‘typology’ of impacts for the REF, and for the REF panels to develop more detailed definitions and guidance for their communities about the kinds of impact and indicators that they would anticipate from research in their disciplines. The initial list of impacts identified by HEFCE will need to be developed further, especially for the arts and humanities. At the same time, the guidance developed by panels is unlikely to be able to anticipate all potential types of benefits that may arise from research in their disciplines, and it should not therefore be restrictive.

• In defining impact in more detail, the REF panels could do so in terms of changes that have come about, public benefits, or the contribution that research has made to the economy and society. This terminology should be used as appropriate in addition to ‘impact’.
Including public engagement

• Panels received a number of case studies of benefits arising from engaging the public with research and we consider that this should be included as an appropriate kind of ‘impact’ in the REF. Some of these case studies were impressive and scored as highly as any other kind of impact. However, some also raised challenges in the assessment, and to overcome these in the REF all case studies claiming impact from public engagement should:
  – Show what distinctive contribution the department’s research made to the public engagement activity.
  – Make a case for the benefits arising from the public engagement activity. This must go beyond showing how the research was disseminated.
Feedback from panels

• Specific issues arose for each panel, which were explored in Annexes F – J of the report
Clinical medicine insights

- Two main types of impact were submitted to the Clinical Medicine panel:
  - 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.
  - Economic benefits – predominantly through start-up companies and medical technology, contributing to the pharmaceutical industry, and reducing the costs of healthcare.

- 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.

- 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**.

- 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.

- 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.
Physics

Submissions

• 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.

• 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.

• 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.

• 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.

• 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.
Physics and PE

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:

- 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).

- 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 with the issues, whereby the department has an active, operationalised public engagement activity which follows up on any initial serendipitous media success.

- 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.

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

- 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.
Earth Systems and Environmental Sciences

Submissions

• 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.

• A small number or cases were received covering impact on public health, engaging the public with environmental research, skills development and spin-outs.
Earth / Environment: impact on policy

• 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.

• 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.

• 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.

• 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.
Earth / Environment: impact through PE

- 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.
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.

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.

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.

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.
Social Work and Social Policy: some definitional issues

- In general we found that the pilot had demonstrated that it was possible to describe the impact of research for our subject areas.
- 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.
- 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.
- 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.
- 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.
Social Work and Social Policy: case studies

• 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:
  – Description of the research.
  – What is the evidence that the research meets at least 2* quality?
  – What was the engagement that enabled the research to have impact?
  – What specific impact did the research have?
    • Who/what was the impact upon?
    • On what scale was the impact?
    • Why was the impact significant?
    • What is the evidence of impact?
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.

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.

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.
English language and literature: impact on education

• 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.
English language and literature: quality

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.
English language and literature: evidence

• 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.

• 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.

• 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.
English language and literature: public benefit

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.

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.

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
– Research that contributes to national cultural enrichment
– Research that extends the global/national knowledge base
– Research that contributes to civil society
– Research that contributes to policy change and development
– English as a global product

The panel then spelt out in more detail examples of these different types of public benefit
Research that contributes to national cultural enrichment

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

• 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.

• 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.

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

• 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.

• 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

• 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.

• The discovery and promotion of archival materials that have distinctive regional resonance.
Research that contributes to policy change and development

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

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

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

• Literacy research that aligns with national strategic priorities and influences policy and practice in improving educational attainment amongst disadvantaged groups.
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/designated exhibitions.
- Growth in small businesses in the creative industries where there are demonstrable links with the underpinning research.
November 2010

REF Research Impact Pilot Exercise Lessons-Learned Project: Feedback on Pilot Submissions

Final report

http://www.hefce.ac.uk/research/ref/pubs/other/ref02_10/
• The Technopolis Group were commissioned to provide feedback from the 29 pilot institutions on the experience of making their impact submissions to the pilot exercise

• The Pilot Institutions were invited to answer ten broad questions, which were used to structure the analysis and presentation of the findings in this report.

• Our summary of their findings draws evidence from various parts of the report. We have provided page numbers to help you locate the relevant section, should you wish to explore further.
Recommendations

The report concludes with several key recommendations:

We offer a number of recommendations to HEFCE for it to consider when synthesising the lessons learned through the submission process with those derived from the assessment process, and which might help strengthen the REF proper.

• Overall, we recommend HEFCE move forward with the generic model tested through the pilot, retaining the impact case studies as the centrepiece of each submission, for assessment by subject-specific Assessment Panels.

• We recommend HEFCE consider its options for retaining the impact statement somewhere within the REF process. HEFCE might consider the possibility of switching aspects of the impact statement to the Research Environment component of the REF, rather than eliminating it altogether. While the majority of Pilot Institutions found the overview largely duplicative and unhelpful to their preparations, this was not always the case. The feedback has led us to believe the impact statements should add value, even if it is not scored directly, by more systematically revealing the spectrum of impact types, cataloguing a majority of all impacts (inventory) and providing an analytical framework for selecting the best mix of high-impact cases. (p.6)
On the HEFCE Guidance, the feedback points to several areas where further work by HEFCE might be beneficial to any future guidelines:

- Adding a glossary of terms
- Redrafting the text in several of the key sections to improve legibility and minimise the risk of misinterpretation
- Explaining ambition levels, in terms of the scope of a case study and the weight of evidence expected, as these two factors will determine costs to a large extent
- Using the pilot impact statements and case studies to develop illustrative material
- Using the Assessment Panel’s feedback and pilot submissions to extend the draft common menu of indicators

In terms of the REF proper, we recommend HEFCE:

- Implementing additional support measures, such as a communications pack, to facilitate institutions’ internal communications
- Defining a timeframe for the submission process that allows sufficient time for institutions to consult their academics and engage research users more fully (p.7)
• A variety of other interesting observations and insights are spread through the report. We have picked out highlights in the following slides.
HEFCE Guidance on submissions

The HEFCE Guidance and briefings were well received by institutions, in the main. While the HEFCE Guidance proved helpful overall, most Pilot Institutions expressed some minor concerns. Most commonly, people criticised four headings within the impact statement, which were confusing and seemingly repetitious.

• Several key concepts were ambiguous, ‘interim impact’ as compared with ‘final impact’, for example, or ‘reach’ and ‘significance’.

• Lastly, most Pilot Institutions that made an English submission noted that the ‘common menu’ of indicators in the appendices to the Guidance was light on measures relevant to the social sciences and the humanities.

(from exec summary)
The submission process

• Pilot Institutions were equivocal about the best approach. However, people were settling to the idea that there needed to be a strong and substantial contribution by senior research administrators, and their support staff, to minimise the burden on key academic staff, and a faculty-wide input to the long-listing and selection of impacts and a more cooperative approach to drafting (from exec summary).
A typical approach to the preparation of an impact submission
Challenges overcome: establishing the meaning of impact

- The most widely reported challenge was conveying HEFCE’s meaning of research impact to their respective academic groups and, in particular, that socio-economic impact was a much broader concept than economic impact.

- It proved to be non-trivial for coordinators to explain HEFCE’s view of non-academic impacts to their academic audience, and substantial effort was devoted to general communication as well as to bilateral exchanges around specific drafts of impact statements or impact case studies. (from exec summary)
Explaining impact cont’d

A small minority cited the pilot’s rather **linear and instrumental** notion of research impact as having been something of a turnoff to academics, many of which felt the chosen model missed the realities of their particular world. The response here appears to have been to keep talking, while looking for examples of more instrumental impacts, which were quickly adopted and used to secure wider commitment, and to accept some softening of the HEFCE definitions, to more fully accommodate colleagues’ view of research impact. This might yet prove to be problematic if, for example, Pilot Institutions have allowed researchers to focus on near-at-hand activity, such as an **appearance on a radio programme** or the **design of a public exhibition**, as while such outreach activities might be prestigious, can they really be said to be a reasonable proxy for a changed outlook or new understanding amongst a specific group of individuals?

A small minority mentioned the challenge of persuading academics to contemplate the ultimate consequences of their work, which some consider to be idle speculation while others somewhat diffidently express unease at the idea of laying claim to social impacts that are almost certain to have arisen as a result of the efforts of many actors rather than one. This is more than modesty and points to a widely held academic view as regards the cumulative and incremental nature of intellectual advances: as Isaac Newton famously wrote, ‘If I have seen a little further it is by standing on the shoulders of Giants.’ This notion of multiple agents is common in the evaluation literature too, and drives interest in concepts like attribution and, more narrowly, additionality.

(p.28)
Challenges overcome: gathering evidence

The biggest challenge was the need to acquire evidence of the reach and significance of a given impact. There were many practical issues that stood in the way, and the response of the majority, for the pilot exercise at least, was to firstly focus on the more obvious cases and, secondly, to use whatever narratives, references and statistics that came to hand readily.

Respondents expect the evidentiary challenge to become less problematic in the medium term, as academics acclimatise to these requirements and begin to log evidence routinely. However, several contributors argued that while new behaviours and systems will improve the evidence base, and the ease with which it can be assembled, intrinsic difficulties will remain, by virtue of the manifold, diffuse and long-run nature of research impact. In light of these observations, we expect many institutions will still select their portfolio of REF case studies in part based on the availability of evidence.

The great majority of Pilot Institutions concluded that the inclusion of a research impact element within REF will require additional effort on their part to develop departmental and institutional procedures and information systems, better tailored to recording impact-related data and material.

Considering this feedback, it seems likely to the authors that the first developments will be procedural, and that most Pilot Institutions will:

• Ask all departments to develop impact case studies, to expand the total institutional catalogue of reference cases and to help build institutional capacity
• Ask all researchers to think more about what good things happen outside academia as a result of their work, inviting people to record any relevant material or data as and when it arises

(from exec summary)
Evidence cont’d

Pilot Institutions struggled with the meaning of several other key terms, in particular what was meant by evidence. Several Pilot Institutions suggested they had taken a narrow view, evidence in a semi-legal sense, which is to say, material that would stand as proof of work done (a bibliographic reference) or an impact realised (a named referee). Others took a more inclusive view, which is to say any thing – object, fact, testimonial, anecdote, etc – that might prove helpful to a reader in forming a judgement about the nature of the given impact and its dependence upon research carried out at the HEI in question. There was also a question posed about the weight of evidence: how much evidence is likely to be considered enough? This was a particular concern in those areas where evidence – relevant, objective facts – of impact was much harder to obtain or even conceive, like cultural impact. (From main report, p.15)

• Impact case studies were skewed towards forms of impact that generate audit-quality data (broadcast radio) rather than other more diffuse forms where data is harder to identify and the narrative connection harder to establish (for example reflective and philosophical work that changes public behaviour). (p.44)
Several respondents expressed uncertainty over the precise meaning of the two principal impact assessment criteria, reach and significance, which were defined in the guidelines thus:

- Reach: how widely felt it was; and
- Significance: how much difference it made to the beneficiaries.

The definitions used in the grading system might very well be a source of confusion with the differing degrees of ‘significance’ described using phrases more often found in innovation literature: incremental, highly-innovative or ground-breaking impacts. This unit of assessment might be seen as meaningless in many arenas, whether that be changing values and culture or some other social phenomenon, like equity or trust. Similarly, choosing the term ‘situations’ as the unit of measurement for the ‘reach’ component of the composite impact metric might have seemed rather alien to many, although one can sympathise with the author’s difficulty in finding an agreeable collective noun for all types of benefits and beneficiaries.

The confusion might also relate to the implicit requirement, taken from the use of the word extent, to quantify each impact where possible, both in terms of the numbers benefiting and the quantum of benefit, where respondents are once again telling HEFCE that they believe these quantities to be unknowable in a majority of cases (from exec summary).

The biggest challenge was the need to acquire evidence to reveal the reach and significance of a given impact. There were many practical issues that stood in the way, and the response of the majority, for the pilot exercise at least, was to firstly focus on the more obvious cases and, secondly, to use whatever narratives, references and statistics that came to hand readily.

The implication is that the individual case studies are not as good as they could have been, had there been more time available to prepare cases and institutions had the resources and could justify greater investment in researching impacts. (p.31)
‘Pathways to impact’

The report makes several interesting observations about the ‘nature’ of impact and how to assess it

• In its opening pages, the HEFCE Guidelines include a critical section discussing the definition of socio-economic impact where an **Interim Outcome** or impact is described in somewhat abstract terms as some **thing** that has happened as a result in part at least of underpinning research carried out within the HEI, and is likely to be an important milestone, possibly one of several, that one might find along the journey from research to the Eventual Impact.

• The introduction of Interim Outcomes is rather important, as it is an open acknowledgement that many of the most dramatic science-enabled impacts might be realised very many decades after the original research breakthrough was made and, as such, the time-lags are beyond the scope of an institutional assessment system such as REF. These **interim or intermediate outcomes** are equally important for a majority of research where the ultimate impacts on our well-being, health, environment or economy are going to be terribly diffuse and essentially impossible to distinguish from other areas of endeavour or connect back to specific programmes of work.

• The section takes the notion of **Pathways to Impact**, echoing the work of the research councils, wherein good research, whether fundamental or applied, can be expected to influence, in some degree at least, the knowledge, assumptions and actions of others, with that effect assumed to radiate outwards from one’s immediate partners and peers to the wider academic community, while also helping shape understanding and values in the wider community, directly through education and outreach and indirectly through knowledge spillovers. The Pathway to Impact model assumes that in at least a proportion of cases, publicly funded academic research will lead to formal outputs – a paper, a book, an exhibition, or whatever – that will be consumed by non-academics, whereby the resulting insight might lead one or more of those parties to change their views or behaviour, an (interim) outcome of the research where, in the fullness of time, that new understanding might provide the platform for the development and implementation of a new service, therapy, piece of legislation and so on, that proves to be beneficial to some segment of the population, several points removed from the original research, an impact. (p.16)
Fundamental vs applied research

• Several respondents noted that research impact was most readily observed and measured where the distance between the two realms, research and impact, was relatively short and the pathways rather direct: for example, applied scientists working in collaboration with a private business seeking expressly to translate the generic insights into commercial advantage.

• The socio-economic impact of more fundamental research might go unnoticed and unremarked most of the time, reflecting the diffuse, cumulative and rather unpredictable nature of intellectual advances. Indeed, one might imagine that the occasion where a fundamental breakthrough produces a relatively immediate and direct social improvement is rare, even anomalous. In practical terms, this means the impact case studies track back to particular types of people and types of work. It might also mean that some of the most consequential socio-economic contributions will be excluded by virtue of their rather indirect link with cutting-edge research.

• There was a suggestion that institutions had taken the low hanging fruit, and that in some sense the portfolio of case studies was not a good representation of the breadth of research undertaken. This sentiment appears to be rooted in a general sense that impact is most obvious in some narrow areas, within subjects rather than between them, and largely unknowable, at least in practical terms, in most instances (p.30)
‘academics’ vs ‘engagers’

A significant minority of respondents commented on the degree to which a given unit’s impacts might be skewed in favour of certain sub-fields or even individuals.

- One of the major problems we faced was linking these impacts back to single published research papers of a given ‘quality’. What we tended to find was that within each department some of the academics do very ‘academic’ work and focus mainly on research publications while others work in much more applied areas and carry out a lot of ‘public/private engagement’ activities. The latter researchers can point to multiple impacts from their work, but struggled to attribute those impacts to ‘high quality’ published papers – the impacts came mainly through their engagement and interaction with the users/beneficiaries and through the transfer of knowledge between individuals on a human level rather than as a result of the users reading academic research papers. Reflecting on this, HEFCE’s view of impacts should be more open/flexible and they should be interested in impacts however they are generated.

- We have ‘impact’ people who tend not to focus on major publications (monographs etc) because they are too busy doing research and engaging with users, and on the other side they have ‘academics’ who put most of their effort into research publications and as a result have little time to engage with (non-academic) users. Individual researchers rarely have time to do both well and so tend to specialise in one or other area, however HEFCE’s rules require the areas of (best) impact to be related to the (best) publications, even though this is not how things work in reality. Big impacts don’t come through published papers but through other forms of engagement!

- We were left with a strong sense that fundamental academic research, such as that undertaken in this faculty, is much less likely to produce outcomes of the kind envisaged by HEFCE.

- … the assessment of non-academic impact is not appropriate across all subjects. Indeed, even within disciplines (for example Physics), areas of applied research lend themselves much more readily towards impact assessment than theoretical research. Hence, impact assessment must take into account the subject platform from which the impact has been achieved. (p.30)
Common indicators

The Guidance included an annex (Annex G) that set out a draft ‘common menu’ of impact indicators, a provisional list that included a typology of nine broad classes of socio-economic impact, which ranged from delivering highly skilled people to more innovative businesses to improved public services and improved health outcomes. Each class of impact was linked with a set of performance dimensions, or indicators, including for example, the following:

- Staff movement between academia and industry
- Increased turnover / reduced costs for particular businesses / industry
- Influence on public policy debate
- Improved educational attainment among disadvantaged groups
- Enriched appreciation of heritage or culture

The most heartfelt challenge related to a perceived bias within the guidelines more generally in favour of the applied sciences and technological innovation leading to economic impacts. This anxiety seems to be a long way from reality, when one looks more closely at the menu of indicators. However, the ninth type of socio-economic impact – ‘other quality of life benefits’ – was criticised by Pilot Institutions submitting English returns for the absence of specific indicators, which was seen as symptomatic of an intrinsic bias as well as being unhelpful. It left this particular group with a substantial additional burden as they attempted to work out what kinds of performance dimensions might be deemed appropriate by HEFCE and the English Assessment Panel. (p.17)
The most widespread concern was uncertainty around the status of the ‘common menu’ of indicators: what was its purpose? Was it primarily intended to encourage people to quantify outcomes to a greater extent than they might otherwise have done, providing a list of suggestions just to get respondents thinking along the right lines? Or were Pilot Institutions required to use at least some of these metrics? Was it version 1.0 of a taxonomy of socio-economic impacts with associated standard/common indicators, which all HEIs will be expected to monitor and report against in the fullness of time?

- The purpose of the list was unclear, and in particular we had difficulty understanding whether HEFCE and the Assessment Panels would be expecting all case studies to use indicators from this ‘common menu’.

On this last point, several respondents liked the idea of a common menu of standard indicators broad enough to cover all subjects, but it is not clear how feasible such a comprehensive system would be. There might be risks too. A practicable metrics system will tend to be kept simple, such as having ten key performance indicators rather than 100. However, ten KPIs would be unduly narrow and prescriptive given the range of types of impact of interest and the spectrum of research activity and subjects that are covered.

None of the respondents suggested different or better metrics, although these might be evident in their individual submissions.
Benefits of taking part

• Most were strongly positive about the experience and collectively cited some half-dozen institutional benefits, wherein institutions had:
  • A much better grasp of what is meant by non-academic research impact, in particular its broad scope
  • A much better sense of what will be required in order to detail the nature and extent of research impacts, and how to avoid at least some of the potential pitfalls in preparing submissions
  • A new perspective on many excellent things that have happened as a result of research undertaken within the university: ‘Institutions had also come to a new understanding of their many and various specific contributions to the wider world, and many were pleasantly surprised at the results’.
• (from exec summary)
Subject specific issues

Looking across the feedback from 29 institutions, HEFCE’s generic approach to the submission process has worked reasonably well, with no insurmountable difficulties experienced in any subject. There were subject-specific challenges. These concerned English most often, where impacts tended to be more conceptual than instrumental, so intrinsically difficult to convey and dimension. The response was twofold, to focus on the small number of obvious impacts and otherwise to develop case studies of interim impacts (notable achievements, that might be expected to contribute to a wider societal impact in the fullness of time), which used narrative accounts, qualitative in the main, and relied on self-evidently noteworthy events as a proxy for future impact.

Not all English departments struggled with the exercise, and there was no clear split between humanities and the other four subject areas in terms of the degree of difficulty encountered. Indeed, in several cases, Pilot Institutions reported that their ‘non-English’ unit had struggled with the exercise more than their English department. There were also widely reported challenges in each of the other four subject areas, with a significant minority of contributors suggesting the exercise had ultimately focused on impacts linked with their more applied research while their theoreticians and basic researchers had found it harder to identify and dimension specific socio-economic impacts attributable in some critical manner to their own work.

Looking across the 29 accounts, it appears that each of the five subject areas might have what amounts to an impact signature, a characteristic profile of impact pathways and types of impacts, particular to the subject. For example:

- Clinical Medicine and commercial confidentiality
- Earth Systems and Environmental Science and the importance of interim impacts
- English and the centrality of individual scholarship conducted over a lifetime
- Social Work and Social Policy and the valuation of the negation of existing policies
- Physics and the attribution challenges posed by working on international projects

(from exec summary)
Subject specific issues

- **Clinical Medicine**: no obvious, subject-specific issues here, indeed the pilot appears to have worked well for this field, with numerous impacts reported across health, policy and economic realms (based on the criteria and timeframes specified);

- **Earth Systems and Environmental Science**: substantial proportion of theoretical work, feeding into global discussions on for example climate change and policy related to this;

- **English Language and Literature**: widespread sense that this field of research was much more likely to be influencing pedagogy or public understanding and much less likely to be deliver the sorts of ‘breakthroughs’ one might see in the physical sciences providing the basis for new products or services or new enterprises, although examples of both did exist. Changing attitudes and improving understanding were thought to be harder to concretise and assess, and there were many suggestions to the effect that evidence would need to focus much more on interim impacts;

- **Physics**: concern was expressed here about the very high proportion of theoretical work and the distance in time and space between this kind of research and the sorts of socio-economic impacts referred to in the HEFCE Guidance. There was also a comment about the particularly collaborative nature of much Physics research, with people working in large teams on multinational projects, and just how one might deal reasonably with attribution;

- **Social Work and Social Policy**: just one recurrent issue here which was the highly political nature of Social Policy and the suggestion that some of the very best research, with real potential to improve things on the ground, is passed over.

(p.44)
Connecting specific pieces of research to specific social or cultural developments was thought to be particularly challenging – too many straight lines – and there was a suggestion that English, possibly the humanities more generally, might have to focus on interim impacts to a very large degree. However, even these more immediate outcomes were thought to be hard to evidence, often involving private individuals and voluntary sector organisations with no inclination or requirement to measure ‘improvements’. Even engagement with more mainstream media is said to be rather uncertain, as to whether institutions might reasonably expect access to audience figures and ratings, given the commercial sensitivity of the same. There were concerns expressed about the value of media statistics to researchers: what might one infer about research impact from the exit poll of one lecture given at a science festival?

There was also a suggestion that the tendency of research in the humanities to follow the single scholar approach had brought its own difficulties in that their work can be rather long-term and narrowly based and therefore the ratio of case studies to staff might be insufficient to convey the breadth and weight of an entire UOA’s socio-economic contributions. The institutions got round this by making case studies of research areas or themes, involving multiple researchers over time.

Perhaps rather unexpectedly, several respondents stated that their English departments were rather better informed about research impact and ready to showcase their contributions to non-academic communities than were their colleagues in other subject areas. (p.29)
Some aspects of research impact are much less well developed in terms of their measurement and instrumentation: evaluation methodologies and performance statistics are more readily available in the economic realm and similarly health and educational gains are closely monitored and studied. The AHRC has been making great strides in respect to the humanities; however, the state of the art is still a long way behind economic impact assessment. This suggests that certain disciplines might benefit from relatively greater effort being devoted to the development of exemplary material by HEFCE or the community and to the development and calibration of acceptable performance indicators.
Physics

- Physicists had some particular concerns about the challenge of assessing impact in the manner foreseen by HEFCE.

- The difficulty in attributing UoA-specific ‘ownership’ of impact that arises from the work of a large collaboration, either experimental (in our case, a ten-institute international collaboration working on experiments at CERN) or theoretical (an eight-institute collaboration using High Performance Computing facilities).

- The blurry distinction between the ‘use of’ new high performance computers and the ‘stimulation of’ the development of these machines. At what point does close collaboration with a company such as IBM in the development of teraflop or petaflop computers become ‘impact’?

- Commercial confidentiality became an issue. Even in this pilot exercise, and making use of the ‘Confidential’ tag on the submissions, we still had to remove some of the strongest material concerning cooperation with industrial companies because of confidentiality agreements. In REF itself, this would be a huge problem. It should be noted that this also contributed to the Institute of Physics giving up on a recent exercise to try to quantify the impact of Physics.

- It is impossible to quantify the impact of public understanding of science initiatives such as TV and radio appearances, popular lectures, books, etc at the scale of individuals or groups. Across the community, such work clearly has an important impact, but this cannot be sensibly quantified. (p.29)
Advice to non-pilot HEIs

• The most widespread advice to non-pilot HEIs is that they should begin their preparations for the REF Impact Assessment immediately.
• The pilot exercise confirmed that the act of gathering evidence on research impact is a largely new endeavour, with little institutional infrastructure available to support the process and heavy reliance on the personal knowledge of senior academics.
• This embodied quality led people to suggest that HEIs should do more to write down what is already known about past impacts and, going forward, to explore cost-effective options to encourage collection of impact-related material and evidence.
• The Pilot Institutions foresee the need for a major communications exercise too, with each university needing to launch conversations with all faculties in all units of assessment. Equally, the Pilot Institutions anticipate this communication exercise requiring rather more than a communiqué and an accompanying event, given that many academics remain sceptical and will view the REF proposals with a mixture of anxiety and antagonism.
• (from exec summary)
One chapter of the report focuses on this, with lots of practical suggestions, including:

• It would make sense to add ‘impact’ to the duties of a senior officer and his or her equivalent administrative director. These new requirements will affect everyone, so some central champion and arbitrage is likely to be necessary. The detail is to be determined of course, and is likely to reflect the existing situation. One Pilot Institution suggested that non-pilot institutions really ought to put someone in charge of Impact Assessment, immediately, so there is time to learn and build up the evidence base. By contrast, another institution suggested that a more incremental approach was likely to be best. People should be wary of going overboard with new administrative structures and appointments and instead look at the many opportunities they will have to slightly modify or extend existing arrangements and individual assets

• Several institutions thought that it was a good idea to have the impact evidence stored and available centrally, and that archiving ‘systems’ needed to be developed to capture and consolidate the material sitting with researchers

• Yet another institution suggested that it was important to have someone within the department who might stand as an impact champion and liaison; someone who understands the kinds of impacts the department is generating. Whether or not this person was brought in to do this job or already had a role within the department, it would be important to have an active, senior academic on the ground who had this kind of ‘local’ knowledge and who could act as a communication channel between busy researchers and central administrators or external evaluators

• Another institution suggested that the pilot had revealed that the state of the art – in terms of tracking and reporting on wider impacts – varied substantially between institutions and across disciplines, and that peer learning through networking at institutional and disciplinary level would be a good way of sharing best practice ideas and helping the less advanced to develop their own ideas faster about what kinds of impacts they believed they were producing
Impact statements

• We recommend HEFCE consider its options for retaining the impact statement somewhere within the REF process.
• HEFCE might consider the possibility of switching aspects of the impact statement to the Research Environment component of the REF, rather than eliminating it altogether. While the majority of Pilot Institutions found the overview largely duplicative and unhelpful to their preparations, this was not always the case. The feedback has led us to believe the impact statements should add value, even if it is not scored directly, by more systematically revealing the spectrum of impact types, cataloguing a majority of all impacts (inventory) and providing an analytical framework for selecting the best mix of high-impact cases.
• (from exec summary)
Communications and training

We suggest HEFCE might consider the merits of:

- Developing a communications pack for HEIs to help REF coordinators move their senior faculty and academics along the learning curve, quickly and confidently. It could comprise a range of materials, and advice on their use, designed to help the senior administrators who will oversee the submission process explain the requirements to university officers, senior faculty and individual PIs. The pack should naturally include the HEFCE Guidelines, however it might also include a selection of case studies and even several PowerPoint presentations, to explain the overall exercise and possibly to focus in on critical elements, from understanding the Assessment Panel’s expectations to suggestions for gathering evidence. In the interests of quality assuring and streamlining what will always be a quite complex, multi-layered communication exercise, HEFCE might also wish to give some thought to developing a short course for HEI coordinators, which the Pilot Institutions might come together to deliver to their colleagues around the country (p.31)
Tracking impact

• Working with the Pilot Institutions after the fact to develop some advice on light-touch routines to help researchers gather impact-related material continuously rather than in a one-off rush in the last few months before an impact submission is due. For example, we were told that several institutions are including an impact heading within their standard, staff appraisal template. This might cause people to take note of wider developments as and when these reveal themselves (systematic opportunism), and automatically provide a faculty-wide, digital record of the more noteworthy incidents, which might even be fed into a regular departmental account of interesting outcomes and impacts. Institutions might help people to get the impact habit by developing a simple questionnaire – three questions not ten – that anyone could put to their partners, research users or other stakeholders in the six to 12 months following the conclusion of a grant or centre (e.g. do you think you might do anything differently as a result of what we have found here?). Similarly, collaborative agreements and contracts might look to include a simple clause expressing the ambition for all parties to be prepared to support one another’s efforts to keep track of developments made possible by their work together (p.31)
Generic vs subject specific advice

The guidance proved to be a bit too generic, and coordinators ran into difficulties when trying to explain the notion of impacts to departments and often had to do substantial preparatory work themselves in order to exemplify it.

A significant minority suggested that the inclusion of worked examples would be a great help, and recommended that HEFCE make full use of the case material. In a small number of cases, respondents went as far as to suggest that future guidance should be developed so that the generic material is fully supported by good, relevant case material and impact indicators appropriate to the specific discipline.

(p.17)

…it is evident that impact in Clinical Medicine is not the same as impact in English Language and Literature, and impact in these will not be the same as in, say, Philosophy or Pure Mathematics. Impact is very subject-specific and this needs to be recognised by HEFCE from the outset. The list of possible impact factors therefore needs to be as broad and inclusive as possible, especially as regards the humanities. It will be very important that each REF Assessment Panel sets out its own definition and understanding of impact and how it is to be assessed. (p.43, quote)