EXCELLENCE IN RESEARCH FOR AUSTRALIA (ERA) INITIATIVE: CONSULTATION PAPER

Submission Cover Page

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Does the organisation consent to having its submission identified in a report on the outcomes of this submission process to be prepared by the ARC, which could be made						
publicly available on the ARC's website? (Y/N) YES						

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Issues for Response

The ARC is seeking feedback from the sector on the issues raised in the Consultation Paper. These issues are highlighted in the pink boxes throughout the Consultation Paper and listed below.

General Australian Academy of Science statement:

The Australian Academy of Science welcomes the opportunity to assist in the development of the *Excellence in Research for Australia* (ERA) initiative. As most research in Australia is funded either directly or indirectly by Government, the ERA scheme will fill a crucial role of assessing the quality and effectiveness of Australian research. In addition to addressing the specific questions raised by the ARC, the Academy makes the following comments with regards to the ERA initiative:

- The Academy is concerned that there is no indication in the consultation paper how the outcome of the ERA exercise will be used. One of the weaknesses of the Research Quality Framework (RQF) initiative was a naïve approach to the relationship between past research success and future government funding. The research sector must be given an indication of how the data from this exercise is likely be used to determine future funding.
- It is surprising that the ERA initiative is based on universities alone. Australian research (obviously) is also conducted at CSIRO, the medical research institutes, DSTO, public hospitals and other public agencies, as well as the private sector. While this is an issue for most disciplines, it is especially problematic for areas such as biomedical research, where other organisations such as public hospitals foster basic research through to applied research. Staff members in these organisations often have the opportunity to research full-time, as well as carry out post-graduate training.
- In the allocation of ERA funds to universities, it is vital that the process includes a major element of peer review.
- Rather than create a new government body to distribute funds across all sectors, the respective agencies with a record of transparent and apolitical actions should distribute funding within their sector. However, an overviewing or coordinating body should ensure quality outcomes across all research sectors.
- The methodology of the ERA scheme may impede future interdisciplinary research unless careful attention is given to this point. While universities are still largely organised into departments, research is not. The ERA consultation paper suggests that interdisciplinary research can be 'picked out' by institutions as rare examples and can be additionally tagged by an institution to represent particular areas of research (page 6). While this creates additional work for the institution, the methodology fails to recognise that a large number of research areas, for example in medical or climate change research, must be, by their nature, interdisciplinary. In other disciplines, interdisciplinary

- Measuring staff 'quality' by counting the total outputs of an institution may create an inaccurate overview. For example, if in one department with 10 staff members, only one is active and produces 10 papers while the other nine produce nothing, would this department be judged as "better" than a department in which each researcher worked part-time and produced one publication?
- It is questionable whether a blanket 6-year reference period, as suggested for the 'indicators of research quality' in Appendix C, is appropriate across all disciplines. The rate at which citations accumulate varies strongly between discipline groups, and the reference periods should reflect these differences. In many cases, recognition of a particular piece of research is slow in coming and when coupled with sometimes long publication times, a too-short reference period is likely to lead to a replication of research publications that add only incrementally to earlier results.

Measures of Research Activity and Intensity, pages 7 and 8

1. For the 2008 clusters of ERA, research activity and intensity data will be collected at the two-digit FoR level. Collecting this data at four-digit FoR level over the longer term would provide greater granularity of analysis and reporting. We welcome feedback on any implications that this requirement will have for the span of the reference period in terms of retrospective data collection.

The Australian Academy of Science notes that the measures of research activity and intensity do not offer assessment of or weight for mentoring, nor for the effort that an institution puts into community relations and education, gender equity and wider skills acquisition. An example in health research is the effort that a medical research institute or university clinical department puts into ensuring that its research is adopted by those working in primary care in the community. These are important aspects of contributions to research more broadly, and should be assessed as measures of research activity and intensity.

2. We recognise that non-salaried staff (honorary and adjunct) often contribute to the overall research effort of an institution. Therefore, we are seeking comments on the extent (if any) to which these researchers should be incorporated into staff FTE reporting.

All papers and their citations produced by non-salaried staff should be included in the assessment. Such papers and their citations are real and a part of the national output. Institutions giving some encouragement to such staff are probably generating research output for relatively little cost, and should be themselves encouraged to do so. If the same resource amount can produce five papers from non-salaried staff but one paper from salaried staff, through greater resource needs such as teaching relief, why should the best outcome be discouraged?

Indicators of Research Quality, page 8

3. Are there other core indicators of research quality that could readily be included?

Some measure of the quality of PhD theses should be included. It is the intensity of the effort with respect to new insights, rather than the quantity of work that should be applauded. Papers published in peer reviewed journals should be a matter of course during the candidature of a modern PhD student.

Indicators of Success in Applied Research and Translation of Research Outcomes, page 8

4. What other discipline-specific measures of excellence in applied research and translation of research outcomes should be considered by the Indicators Development Group, and how should they be benchmarked?

Excellence should be the overriding quality for all research whether basic or applied. Patents awarded and, more important, patent uptake, should be considered for the latter. Uptake of intellectual property by industry is also an important factor, including the creation of spin-off companies. Because of the often long take-up time, often 10 years or more, a long-term view needs to be developed.

5. We would welcome suggestions regarding types of practitioner-focussed outlets that may indicate excellence in applied research or translation.

Research Income Data, page 9

- 6. How feasible is it to collect category 2-4 research income data at four-digit FoR? Are there specific issues for each category for retrospective collection? Are there specific issues for future collections in Category 3?
- 7. Are all the income categories necessary or appropriate? What additional income streams could be collected under Category 5?

Within some disciplines, such as biomedical and health research, income from charities can be both highly competitive and significant. This should be acknowledged under indicators.

8. What would the most useful research income reference period be for ERA, considering this does not need to be the same as the six-year publications reference period (see page 10)?

Many items of equipment have half lives greater than 6 years. Some very expensive items of equipment are purchased or upgraded infrequently so to include their capital cost in research income assessments introduces severe distortions into this assessment.

9. How practical is it to request numbers of successful grants in addition to research income?

There should be no difficulty in collecting information on the number of successful grant applications in addition to the financial return resulting from the aggregate. Institutions have this information and publicise it.

Research Publications Data, page 10

10. A list of other possible publications types is provided in Appendix B of the Consultation Paper. We are seeking feedback on whether there is support for these types to be included for individual disciplines and whether these categories are appropriately identified.

Caution must be exercised when allocating weighting to different categories. The listed publication types are not all of the same value, but they do all represent different ways of conveying information and therefore have legitimacy. Caution must also be exercised in deciding which category represents valid research publication data for their appropriate respective discipline(s).

Publication Reference Period(s), page 10

11. Should all non-publication data be collected over a shorter reference period? If so, what would that period be?

Unless there is a significant practical difficulty to doing so, it is unclear why all data could not be collected over the same period.

Attribution, pages 10 and 11

12. Please provide comment on the above approaches for attributing publications.

Attributing publications (and the resulting citations) to staff according to their present address gives a measure of overall staff quality, but may be misleading because it discounts their milieu. It may also lead to a 'dowry' effect of hurried poaching by institutions to collect increased citations. In an extreme (if unrealistic) scenario, it would be possible for an institution to increase its score by serially enticing in new staff prior to each census data and yet make little commitment to their ongoing performance.

Data Suppliers, page 12

13. Which citation data suppliers in your experience result in the most meaningful citation analysis for each of the disciplines?

It is difficult to reply to this question without an actual study of citations missed or found by the various suppliers. ISI has several shortcomings (such as determining citations per person by multiplying by number of authors for a publication, book citations that are difficult to extract, and several inconsistent classification fields) but it is a recognised and respected citation data supplier.

Research Training Data, pages 12 and 13

- 14. Please provide comments regarding research training indicators. Is it possible to provide HDR completions data retrospectively at the four-digit FoR level?
- 15. Do you see value in tagging research outputs as authored by HDR students and value in the analyses this will produce?

HDR-student authored outputs must be recognised in the ERA scheme. These publications and their citations are part of the national output. Further, institutions should be encouraged to favour students publishing, and tagging their outputs would provide encouragement. In most cases, papers by HDR students would be co-authored by supervisors and thus be tagged automatically. However, there are cases in which students publish outside their thesis area, and such outputs should not be lost.

Submission, page 13

16. Institutions are invited to comment on the ease or otherwise of meeting any of the data requirements outlined in this document in addition to the specific questions addressed under particular headings.

Reporting, pages 14 and 15

17. We propose there is considerable value in having maximum flexibility and utility with respect to reporting, however, we also recognise the workload involved for institutions in assigning reporting codes. We welcome feedback on this issue in respect to both the feasibility and value of such an approach.

Examples of Indicators Outputs - Research Training, pages 16 and 17

18. Institutions are invited to comment on the feasibility or otherwise of institutions identifying student authorship in previous HERDC collections.