

## **ARC RESPONSE TO NAF QUESTIONS**

### **Research Evaluation Committee membership**

For the purposes of the 2009 trial, the ARC selected distinguished researchers senior university academics whose expertise is broadly representative of disciplines from the higher education sector to become members of the Physical, Chemical and Earth Sciences Research Evaluation Committee and the Humanities and Creative Arts Research Evaluation Committee. For 2010, the ARC has not yet determined how the membership of the eight Research Evaluation Committees will be undertaken, nor the composition of the representation. Further advice on this will be released when available.

### **Discipline-based and multi-disciplinary research**

ERA is a discipline-based exercise based on the Australian Bureau of Statistics Field of Research codes, and the Unit of Evaluation is the 4-digit code. So a Unit of Evaluation could be 2101 (archaeology) in the University of NSW. The Clusters themselves are inherently multi-disciplinary and the ARC has implemented a number of tools for testing in the trial that helps capture and report on multi-disciplinary research. The Unit of Evaluation as exhibited in the Dashboard shows the use of a discipline profile – which captures the interdisciplinary coding of research outputs. The appropriate interdisciplinary assignment of reviewers is also essential when considering Units of Evaluation. This is available for use by the Committees and peer reviewers. The ARC has also offered the use of institutional tools to institutions to re-aggregate outputs into bigger groupings, such as Schools, centres of excellence, or research themes such as climate change. The ARC also asked for further feedback on this issue in the ERA Consultation Paper which is released before the NAF seminar.

### **FOR coding of people and outputs for ERA – multiple codes, whole count for outputs, and re-aggregation of data for reporting**

To ensure that discipline-specific benchmarks were created for the trial, the ARC instituted the coding of journals articles to the Field of Research codes of the Journal outlet. This ensured a consistent data set, and also minimised the effort by institutions by avoiding the need to individually code journal articles. Outputs that were given up to three field of research codes would appear in the units of evaluation and be given a whole count. This approach does not inhibit reporting of outputs as multi-disciplinary and avoids the need to pro rata the codes and to limit where the output should be shown. The institutions were given the option for tagging research outputs to institutional codes, to enable re-aggregation when the evaluation was completed as part of the reporting requirements.

### **Ranked Journals – use in evaluation and discipline-specific interpretations in context of holistic assessment**

The ranked journals profile is used in evaluation as a tier of the quality of journals, to enable ordering of thousands of articles. The ranked journals profile, while showing the rankings, more importantly enables the Research Evaluation Committee (REC) to drill down freely into the submission data, to view the bibliographic information of the journal articles. This allows the REC to see not only the details of the outputs, but to distinguish the discipline-specific interpretations for each Unit of Evaluation. For example Condensed Matter Physics has no A\* journals, and based on expert advice received, publishing practices in nursing is primarily directed to the 30,000+ General Practitioners in Australia, their key stakeholders.

So while the ranked journals is a standard tool used by ERA for all disciplines, the three most important facts about Ranked Journals are that the RECs will be able to drill into the data underpinning the profile (for all tiers), the ranked journals profiles are viewed with discipline-specific specialists on the committee, and finally the ranked journals is only one of several indicators used to

form the holistic assessment for a Unit of Evaluation. The sector is encouraged to assist with the consultation on the ranked journals for all disciplines, and the list is on the ARC website. Individuals are asked to take particular note to thoroughly check the list for omissions of journals, but be aware that journals may have stopped, changed names and so forth. This will avoid feedback on missing journals which are already on the list.

### **How does ERA consider researchers in evaluation**

The Unit of Evaluation is the 4-digit Field of Research code (or discipline) in an institution, and the focus is on the research outputs. ERA does not evaluate individual researchers and in fact the Unit of Evaluation profiles prevent RECS from viewing details of staff in the FTE and headcount data as part of this discipline-based framework.

### **Applied research in ERA**

During the trial in 2009, the ARC is testing a number of quantitative indicators that is linked to applied research and translation of research outcomes, including granted patents, research commercialisation income and registered designs. A number of new indicators have been suggested for the full ERA evaluation, and are listed in the ERA Consultation paper and the ARC is seeking comments on these suggested indicators.

### **Mythbusting – weightings, formulae, FTE denominators for productivity**

For the trial, the ARC has not utilised weightings of indicators, nor developed any formulaic way of undertaking the evaluation. Full Time Equivalent, as per the ERA Evaluation Guidelines, is only used as a denominator for the HERDC research income (category 1) profile to assist in deriving income benchmarks. FTE is not used in any way as a denominator for other profiles, and productivity is not considered in ERA as an indicator of research quality. The RECs cannot drilldown into the FTE profiles other than to see raw counts at the different levels.

### **The use of future ERA data by Government and institutions – strategic policy advice and baseline information for funding negotiations**

The Minister has announced that the outcomes of the trial evaluation in 2009 will not be used for funding outcomes. The ERA full evaluation is likely to have funding implications. ERA represents an important opportunity to distinguish quality of research in the higher education sector, with a consistent methodology. The results will be important information that will assist in the formulation of future strategic policy advice. The outcomes of the ERA full evaluation will be provided back to institutions by Government and the outcome will provide an important baseline of information which will inform the funding negotiations in future years.

### **Behavioural Changes – publishing practices, academic and institutional focus on various indicators**

The design of ERA including a range of indicators in the Government's national evaluation framework is being trialled in 2009. As part of the transparency of methodology, the ARC released the ERA Evaluation Guidelines which clearly articulates the use of each indicator, and the holistic approach of review by Research Evaluation Committees and by peer reviewers. Additionally the ARC has undertaken regular outreach activities during 2009 to better inform the higher education sector about the framework of ERA trial in 2009.

While the ARC is undertaking a national evaluation utilising a number of indicators and in some cases peer review of research outputs, it is clear that the sector has already started to adopt the use of some trial indicators such as ranked journals. However, measures of journal quality or 'impact' are not new. The Thomson Reuters Journal Impact Factor has provided similar information for many

years. In the Humanities, the European Rankings have recently emerged, with a particular focus on regional journals.

### **Citations for everyone?**

Following thorough consultation, the ARC used citation analysis for Physical, Chemical and Earth Sciences disciplines in the trial. Citation analysis was not used for Humanities and Creative Arts (HCA) for the trial. It was determined that there was insufficient coverage of indexed journal articles in HCA disciplines by citation suppliers, and therefore was not considered a robust indicator for ERA. Peer review was used to supplement the range of indicators chosen for HCA. The ERA Consultation Paper seeks advice from the sector on the use of citation analysis for other disciplines following consultation with discipline experts.

### **What about Medical Research Institutes and other research agencies?**

During consultation the ARC and NHMRC recognised that a significant proportion of medical research is undertaken by research staff associated both with universities and with MRIs. The eligibility criteria for the trial allowed the inclusion of MRI staff and their outputs if they were associated with a university (an adjunct and the output showing the university in the by-line). It is recognised by the ARC and NHMRC that this approach does not give a complete picture of medical research, but does capture researchers and research outputs that cross the domain sufficiently to be included in ERA.

### **Overseas interest in ERA approach, also other Australian research agencies**

The Minister intends for ERA to apply to the higher education sector only. The ARC is aware that other research agencies, both in Australia and overseas have expressed interest in the outcomes of the trial.

### **Internationalising evaluation**

The Minister asked the ARC to further internationalise its funding schemes under the National Competitive Grants Program. ERA presents a new opportunity to measure Australian research against world benchmarks by discipline.