

# Excellence in Research for Australia (ERA) 2011 Consultation

## Submission by the Australian Academy of Science

The Australian Academy of Science has been a participant in discussions about the role and implementation of ERA since it was first proposed. The first round of evaluations has now been completed, so this is an excellent time to take stock and assess what has worked and to offer comments and criticisms that could lead to improvements in the future. We have chosen to make our comments in Section 8, "General Comments", because these comments relate to the entire process rather than specific issues around units of evaluation and patenting.

- In general terms, the Australian Academy of Science welcomes any attempt (such as the ERA) to offer an objective assessment of Australian research quality. In view of the large public investment in research, such assessments are both a Government and a community expectation. In this sense, we think that ERA has been a positive step, although we note that the value of ERA depends on the integrity and accuracy of the bibliometric measurements on which it is based.
- We think that the first ERA has positive features. It has demonstrated that much Australian research is of high international standard. It has shown that research areas that have received consistent Government funding over decades have been amongst those that have done best. The Academy concludes from these data that Government should support generous and sustained funding in areas of excellence.
- The ERA proves that critical mass and a tradition of research excellence are both important. Departments with excellent senior staff mentor and grow younger staff into researchers of quality. The Academy believes that it is this consistency of research and depth of staff that explain the high proportion of disciplines in Go8 Universities that attract a grading of "5".
- The Academy's major criticism of the ERA is that, in spite of constant assurances to the contrary, bibliometric assessments of disciplines are not tempered sufficiently by human assessments by experts (particularly at the level of four-digit codes). This is a major issue for many disciplines and for many excellent research groups. There is scepticism as to whether the expert panels, the composition of which is secret, have the expertise and are encouraged to intervene on a discipline by discipline basis.
- The Academy argues strongly that interdisciplinary research and new research areas are seriously disadvantaged by the methodology used in the ERA. The Academy requests that the bibliometric process is investigated to determine if it can be made more flexible. New fields often do not have "dedicated" journals, or if they do, they are often of low impact for the first few years. This is particularly important in relation to interdisciplinary research, which is agreed by most observers to be critical for future success. This disadvantage occurs because of the way in which journals are allocated to disciplines (irrespective of the subject of the research publication), and by the total dependence on out-of-date ABS codes. The system does not easily assess research between two or more Universities, particularly when the research is in several fields, nor areas where research of particular importance to Australia is published in Australian journals (which may not be A\* for all research, but are highly appropriate for particular research areas).
- The ARC has stated that bibliometrics will be used only on a "discipline" basis and not on individuals. However, the Academy notes that Universities are beginning to

judge individuals for promotion, and even for employment, based on how many publications are in A\* and A journals. The Academy opposes these developments, which run counter to strategic research investment. The Academy urges the ARC, and the Minister, to state clearly that this is not the intention of the ERA process. It may be necessary for the Department and Minister to enforce this policy through compacts.

- It is Government policy that the ERA data will be used to help determine funding in terms of the mission-based compacts, in terms of the Sustainable Research Excellence Scheme, and in terms of a modified Research Training Scheme. The Academy urges that all funding decisions are both transparent and strategic. On one hand, funding must be allocated in a way that protects research that is at the highest level of excellence through generous funding, rather than used to raise the “average” standard to something slightly better. On the other hand, a field that is important for future strategic national planning may need to be supported even if not strong at a given moment in time. An example of the latter situation might be support for pure mathematics: because it underpins many other sciences, mathematics is important to our nation even if it is not attracting a large number of students, or grants, at a given moment in time.
- The Academy would be pleased to discuss these points in more detail with ARC.