



Australian Government

Australian Research Council

Excellence in Research for Australia



ERA 2010 Outcomes
University of Sydney
8 April 2011

Objectives of ERA

- Establish an **evaluation framework** that gives government, industry, business and the wider community assurance of the excellence of research conducted in Australia's institutions;
- Provide a **national stocktake** of discipline-level areas of research strength and areas where there is opportunity for development in Australia's higher education institutions;
- Identify **excellence** across the full spectrum of research performance;
- Identify **emerging research areas** and opportunities for further development;
- Allow for **comparison** of Australia's research nationally and **internationally** for all discipline areas.

The ERA Clusters

| | |
|-----------|---|
| Cluster 1 | Physical, Chemical & Earth Sciences |
| Cluster 2 | Humanities and Creative Arts |
| Cluster 3 | Engineering and Environmental Sciences |
| Cluster 4 | Social, Behavioural and Economic Sciences |
| Cluster 5 | Mathematics, Information and Computing Sciences |
| Cluster 6 | Biological and Biotechnological Sciences |
| Cluster 7 | Biomedical and Clinical Health Sciences |
| Cluster 8 | Public and Allied Health Sciences |

ERA Development 2008-2010

- Several major rounds of consultation
- Indicator Development Group (specialist sub-groups)
- Ranked journals and conferences consultation
- Discipline specific indicators
- Full trial in 2009 of PCE and HCA
 - test of systems, processes
 - feedback from sector, RECs, peer reviewers
- Esteem indicators

The ERA Unit of Evaluation

- The **baseline** - the Discipline in an institution = Four-digit Field of Research Code (ANZSRC) eg.,
2101 Archaeology
- The **higher perspective** – the division in an institution = Two-digit Field of Research Code (ANZSRC) eg.,
21 History and Archaeology
- The ERA Unit is not about the department nor the individual researcher



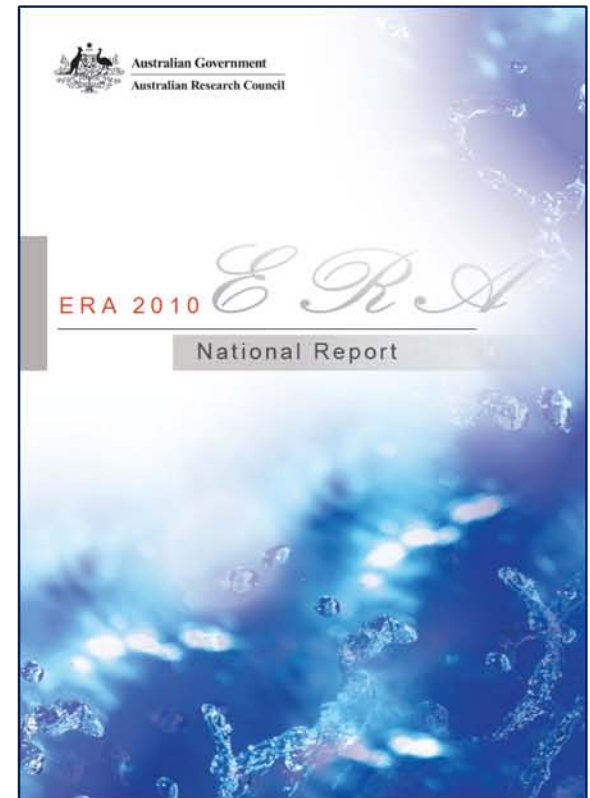
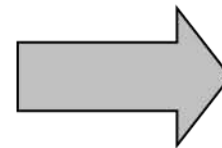
ERA Process Overview

| | |
|-------------------|------------------|
| Volume & Activity | Ranked Outlets |
| Citation Analysis | Esteem |
| Research Income | Applied Measures |
| Peer Review | |

International Benchmarks



Research Evaluation
Committees



Why a matrix approach to indicators?

- Not all indicators are suitable for all disciplines
- Pick and choose what is right for each discipline
- The indicator suite must ensure comparable quality across a range of indicator types
- Journal Rankings are not THE indicator

ERA 2010 Reviewers

- Expert review and specialist disciplinary knowledge were essential – not a mechanical process
- 8 Research Evaluation Committees
- 149 Australian and international REC members
- 500+ Peer Reviewers from Australia and overseas
- REC members also conducted peer review

Stages of evaluation

- Every UoE evaluated by at least three REC members (plus peer reviewers)
- Independent evaluation in the first instance followed by exchange of views
- All evaluations were advice to the full Committee
- All UoEs discussed at the final evaluation meeting
- All final ratings decisions of the Committee as a whole

The ERA 2010 Rating Scale

| Rating | Descriptor |
|--------|---|
| 5 | The Unit of Evaluation profile is characterised by evidence of outstanding performance well above world standard presented by the suite of indicators used for evaluation. |
| 4 | The Unit of Evaluation profile is characterised by evidence of performance above world standard presented by the suite of indicators used for evaluation. |
| 3 | The Unit of Evaluation profile is characterised by evidence of average performance at world standard presented by the suite of indicators used for evaluation. |
| 2 | The Unit of Evaluation profile is characterised by evidence of performance below world standard presented by the suite of indicators used for evaluation. |
| 1 | The Unit of Evaluation profile is characterised by evidence of performance well below world standard presented by the suite of indicators used for evaluation. |

ERA

Background Statement

Volume
and
Activity

Ranked
Outlets

Peer
Review

Citation
Analysis

Esteem
Measures

Research
Income

Applied
Measures

ERA 2010 at a glance

- All 41 eligible institutions participated
- 2435 units of evaluation assessed at the two- and four-digit level
- Over 330,000 research outputs and 55,000 researchers represented

ERA 2010 outcomes: context

- ERA is a **retrospective** evaluation of research performance: 2003-2008 for research outputs, 2006-2008 for other data
- The ERA unit of evaluation is the discipline within the institution, **not** individual researchers or institutional units
- ERA does not rank institutions or units; each UoE is evaluated on its merits against the rating scale

The National Report

- http://www.arc.gov.au/era/outcomes_2010.htm
- National profile of research activity
- Evaluation outcomes by FoR and institution
- Searchable results on-line by institution and by FoR

Reading the national results

86% of assessed UoEs received a rating at or above world standard (i.e. rating of 3 or above).

Of all assessed UoEs at the four-digit FoR code level (58 UoEs), the average rating is 3.4. See **Section 1** for two-digit FoR code average rating.

| Mathematical, Information and Computing Sciences | | | | | | | |
|--|--------------------|-------------|----------------------------|----|----|------------|---|
| 01 Mathematical Sciences | | | | | | | |
| % assessed UoEs rated at or above world standard 86% | FTEs | 880 | Esteem count(s) | | | 106 | Average National Rating 3.4 |
| | Research outputs | 8,659 | Patent(s) | | | 1 | |
| | Research income \$ | 104,624,740 | Research commer. income \$ | | | 22,368,469 | |
| | UoEs assessed | 58 | | | | | |
| Rating: | | 1 | 2 | 3 | 4 | 5 | Total |
| Distribution: | | 1 | 7 | 25 | 16 | 9 | 58 |

There were seven UoEs which received a rating of 2.

A total of 58 UoEs were assessed for Mathematical Sciences at the four-digit FoR code level.

Feedback on submissions

- Institutional data submission smoother than in the Trial
- Institutional repositories generally functioned well
- Definition of research – still outputs being submitted which did not meet the definition in the view of the Committees; these are **not** eligible and should not be submitted
- Selection of peer review items – breadth of work in the 20%
- Supporting statements for NTROs and Portfolios

2010 results – where to from here?

- Great deal of information in the National Report
- Citation and benchmark information provided in confidence to institutions
- Extra SRE funding was contingent upon ERA 2010 participation
- ERA is informing mission-based compact negotiations between the Government and institutions

ERA 2012

- A new ERA 2012 section has been added to the ARC website – developments will be posted there
- Ranked journal and conference lists public consultation has commenced – see ARC website – includes open tender process to involve peak bodies in Stage 2
- ARC will review 2010 processes and seek feedback from the sector – keep an eye on the website

Some issues under consideration

- Low volume threshold – including both number and type of outputs
- Eligibility of fractional staff
- Reference period for income, applied, esteem
- Discipline matrix and cluster structure
- Reporting of outcomes
- Expanding peer reviewer pool
- Other issues raised by sector during consultation

Further information?

- **www.arc.gov.au/era**
- **Email: era@arc.gov.au**
- **Hotline: 02 6287 6755**