



Australian Government
Australian Research Council

ERA Initiative

An Overview



Roadshow Events

Canberra	13 June 2008	University of Canberra
Melbourne	16 June 2008	University of Melbourne
Brisbane	17 June 2008	University of Queensland
Sydney	20 June 2008	University of Sydney
Adelaide	24 June 2008	University of Adelaide
Perth	25 June 2008	University of Western Aust.





Objectives of ERA

1. identify excellence across the full spectrum of research activity;
2. compare Australia's university research effort against international benchmarks;
3. create incentives to improve the quality of research;
4. identify emerging research areas and opportunities for further development.





ERA Consultation Paper

- **Outlines**
 - the framework for ERA;
 - proposed timetable; and
 - seeks views from the sector/stakeholders on specific issues.
- **Submissions**
 - Closing date: Monday 30 June 2008





Proposed Approach

- Evaluation of all research outputs
- Research disciplines will be evaluated within an institution based on Fields of Research (FoR)
- Indicators and proxies developed for ERA will be appropriate to each discipline
- Eight discipline clusters





ANZSRC

- 01 Mathematical Sciences
- 02 Physical Sciences
- 03 Chemical Sciences
- 04 Earth Sciences
- 05 Environmental Sciences
- 06 Biological Sciences
- 07 Agricultural and Veterinary Sciences
- 08 Information and Computing Sciences
- 09 Engineering
- 10 Technology
- 11 Medical and Health Sciences
- 12 Built Environment and Design
- 13 Education
- 14 Economics
- 15 Commerce, Management, Tourism and Services
- 16 Studies in Human Society
- 17 Psychology and Cognitive Sciences
- 18 Law and Legal Studies
- 19 Studies in Creative Arts and Writing
- 20 Language, Communication and Culture
- 21 History and Archaeology
- 22 Philosophy and Religious Studies





ANZSRC

DIVISION 01 MATHEMATICAL SCIENCES

This division covers mathematics, statistics, and mathematical aspects of the physical sciences.

This division contains six groups:

- 0101 Pure Mathematics
- 0102 Applied Mathematics
- 0103 Numerical and Computational Mathematics
- 0104 Statistics
- 0105 Mathematical Physics
- 0199 Other Mathematical Sciences





Discipline Clusters

1. Physical, Chemical and Earth Sciences (PCE);
2. Humanities and Creative Arts (HCA);
3. Engineering and Environmental Sciences (EE);
4. Social, Behavioural and Economic Sciences (SBE);
5. Mathematics, Information and Communication Sciences (MIC);
6. Biological Sciences and Biotechnology (BSB);
7. Biomedical and Clinical Research (BCR); and
8. Public and Allied Health and Health Services (PAHHS).





Indicators

- Indicators Development Group
 - Australian and international experts
 - to consider, test and recommend appropriate discipline-specific indicators
 - the IDG is supported by an analytical testing team
 - analytical testing of all indicators to identify anomalies within each discipline





Indicators - Publications

- **Research Publications data**
 - Books, book chapters, journal articles and refereed conference publications as a minimum.
- **Publication Reference Period(s)**
 - six years ending on 31 December two years prior to the evaluation year.
- **Attribution – options:**
 - Approach 1 – staff affiliation at census date
 - Approach 2 – institution affiliation based on HERDC.
- **Data Supplier**
 - ARC will test the use of multiple citation data suppliers to ensure broad coverage.





Indicators - Publications

- **Outlet Rankings**
 - a range of research output types profiled across four tiers.
 - includes journals and where relevant publishers, conferences, and other outlet types.
- **Bibliometrics (where relevant)**
 - citations per publication against international benchmarks for each discipline.
 - centile analysis.
- **Quality indicators relevant to discipline**





Indicators

- **Research Income**
 - Categories 1-5 for each year of the reference period.
- **Research Training**
 - HDR student load and completions at the two-digit FoR for each year of the reference period.

Are all income categories necessary or appropriate?





Indicators of Success in Applied Research and Translation of Research Outcomes

- Indicators for practitioner-focussed outlets
- Patents produced (by type)
- Plant breeders' rights
- Licence income and other commercialisation revenues
- Research income awarded in collaboration with end users
- Exhibitions and/or performances with a research component and international recognition
- Other discipline-specific indicators as identified by the Indicators Development Group





Evaluation Process

- ARC will be responsible for bibliometric and other analyses employed.
- Bibliometric methodology will be transparent.
- RACs guided by Evaluation Guidelines and will develop discipline-specific national and international benchmarks.
- Evaluation of interdisciplinary research may require a RAC to co-opt relevant expertise.





Example of Breaking Down Ranked Outlets

Tier	Number	Percentage
A*	82	23%
A	105	30%
B	104	30%
C	46	13%
Not ranked	13	4%
Total	350	100%





Citation Analysis

Citations per publication (cpp)

Total Publications	Sum of Cites	Institutional cpp	World cpp Average	Australian cpp Average
337	2,871	8.52	5.08	4.53
Relative citations against world and Australian average			1.67	1.88

Centile analysis

	<1%	2-5%	6-10%	11-20%	21-50%	>50%	Total
Number	13	35	25	38	111	115	337
Percentage	4%	11%	7%	11%	33%	34%	100%





Ranked Journal Analysis

The ARC is now seeking feedback from the research community to assist with the development of research journal rankings.

www.arc.gov.au/era/indicators.htm





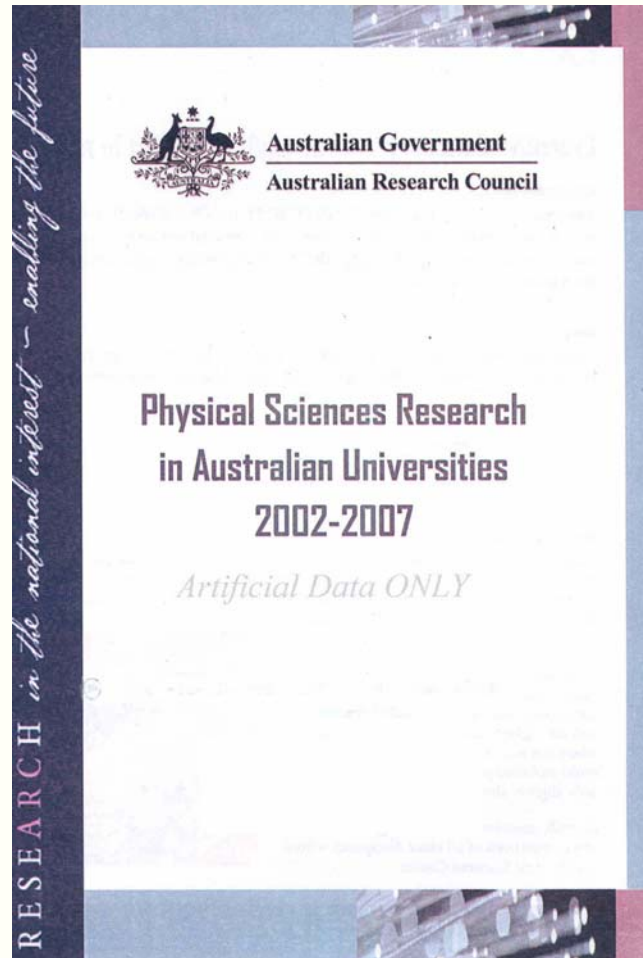
Submissions/Responses

- The ARC is inviting submissions in response to the ERA Consultation Paper.
- Closing date **COB Monday 30 June 2008.**
- Pro-forma for submissions/responses available from ARC website.





What reporting might look like





ERA Consultation Plan

Date	Event
June 2008	ERA Consultation Paper released Draft ranked outlets list released to sector for comment
July 2008	Indicators development group commences Cluster One consultation begins Cluster Two consultation begins
August 2008	Draft ERA Submission Guidelines released to the sector for comment
September 2008	Cluster One consultation ends
October 2008	Cluster Two consultation ends

