



Australian Government  

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Australian Research Council

# Excellence in Research for Australia



ERA 2010 and beyond  
ACDE Conference  
17 October 2011

## ERA – ‘old’ news



# 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.

## 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
- First full ERA evaluation in 2010

# 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



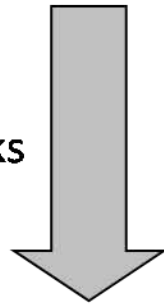
# ERA 2010 – the not-so-old news

 ERA

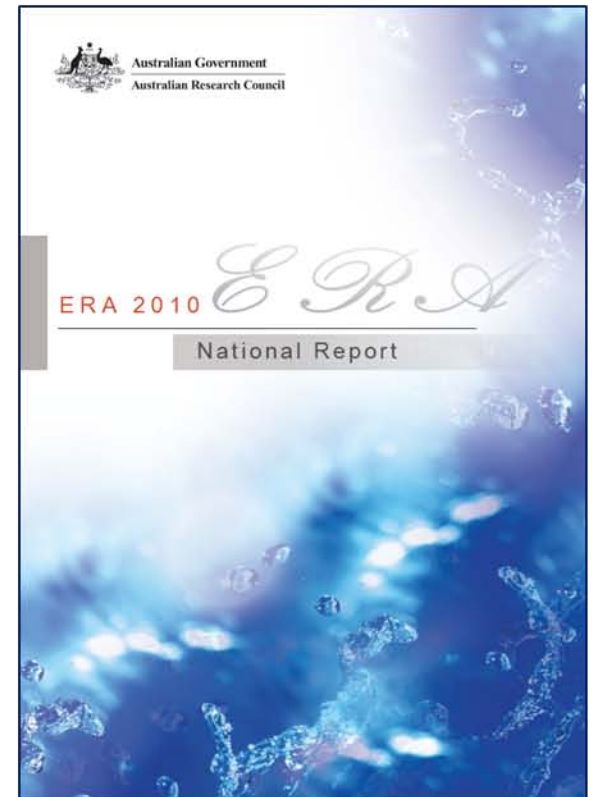
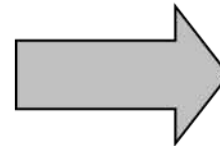
# ERA 2010 Process Overview

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

## 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 in some disciplines)
- 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 <b>well above world standard</b> presented by the suite of indicators used for evaluation.
4	The Unit of Evaluation profile is characterised by evidence of performance <b>above world standard</b> presented by the suite of indicators used for evaluation.
3	The Unit of Evaluation profile is characterised by evidence of average performance <b>at world standard</b> presented by the suite of indicators used for evaluation.
2	The Unit of Evaluation profile is characterised by evidence of performance <b>below world standard</b> presented by the suite of indicators used for evaluation.
1	The Unit of Evaluation profile is characterised by evidence of performance <b>well below world standard</b> presented by the suite of indicators used for evaluation.

## 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

# 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  <b>86%</b>	FTEs	880	Esteem count(s)			106	Average National Rating  <b>3.4</b>
	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.

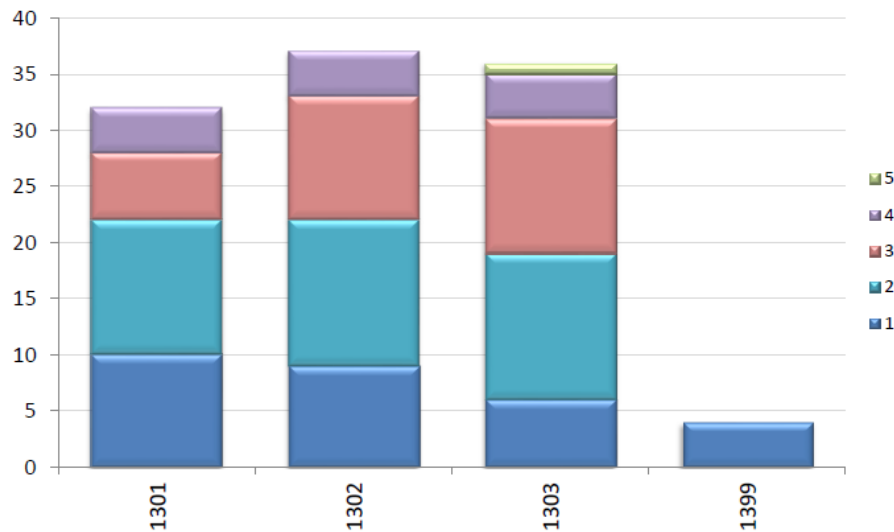
A total of 58 UoEs were assessed for Mathematical Sciences at the four-digit FoR code level.

Social, Behavioural and Economic Sciences

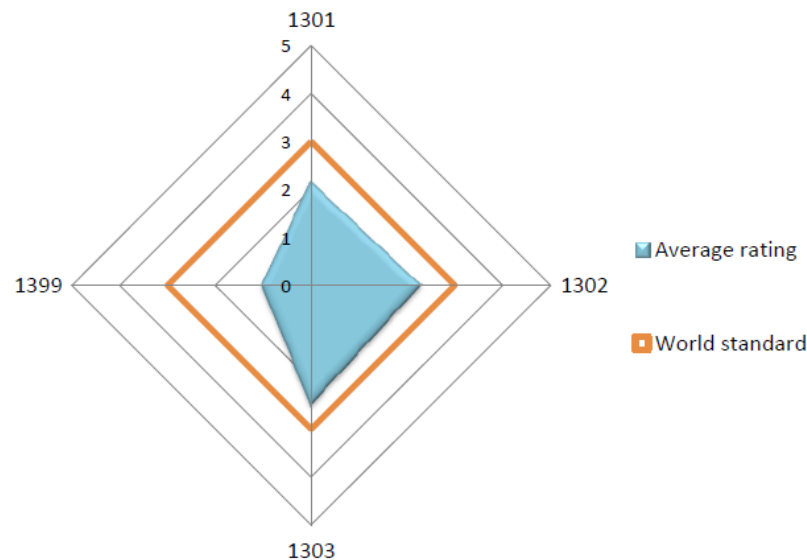
13 Education

% assessed UoEs rated at or above world standard  <b>39%</b>	FTEs	2,886	Esteem count(s)	60	Average National Rating  <b>2.2</b>			
	Research outputs	16,669	Patent(s)	-				
	Research income \$	144,517,609	Res. comm. income (\$)	1,853,031				
	UoEs assessed	109						
	Rating:	1	2	3	4	5	Total	
	Distribution:	29	38	29	12	1	109	

Number of UoEs per rating scale score



Four-digit FoR ratings

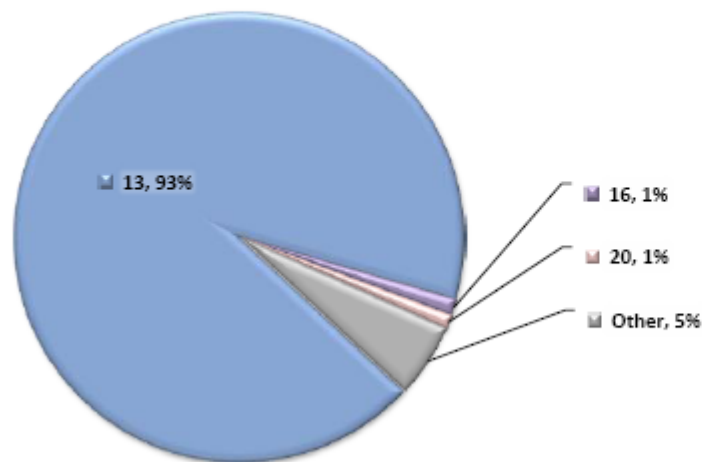


Social, Behavioural and Economic Sciences

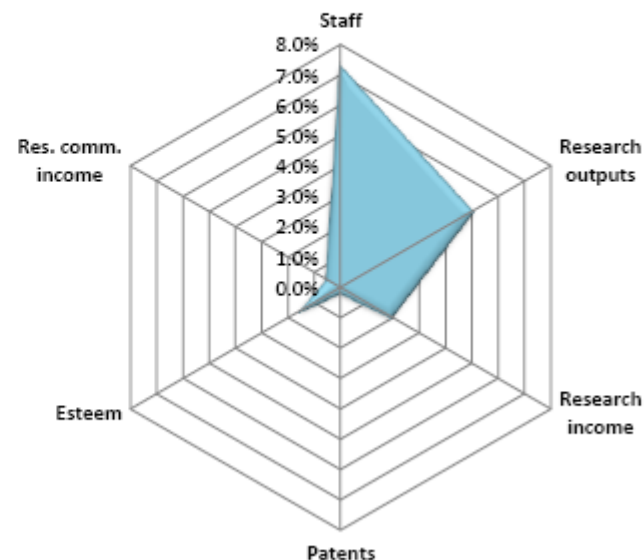
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Disciplinary profile



Contribution to national landscape (%)



# ERA 2010 Myths...

 A large, light green, stylized cursive logo of the letters 'ERA'.

**Now for the “new” news**



## Beyond ERA 2010

- Extra SRE funding was contingent upon ERA 2010 participation
- ERA 2010 results have informed mission-based compact negotiations between the Government and institutions

## Consultations for ERA 2012

- ERA Public Consultation (March -April 2011) – open consultation on issues including reporting, indicators, eligibility, discipline matrix
- Outreach sessions with institutions and peak bodies
- Detailed feedback from ERA 2010 REC members and peer reviewers
- Feedback from institutions on submission processes
- Comment period on draft Submission Guidelines and Discipline Matrix (July 2011)

# Changes to journals and conferences

- Refined journal and conference indicator for ERA 2012
- Ranks will not be used, instead outputs profiled by most frequent journals and conferences in the UoE, with drilldowns available as in 2010
- ARC will still produce a journal list – will not include rankings but will include FoR codes for citation analysis
- Strong feedback that ranked lists were having negative consequences in the sector
- ARC analysis suggested a refined indicator would produce improved results while removing negative consequences

# The refined journal indicator

Example of the draft refined journal indicator for FoR 1801 for University X				
	University of X	1801	Law	
	Journal title	Papers	Contribution	Cumulative
1	Journal of Law and Medicine	27	6%	6%
2	Public Law Review	27	6%	12%
3	Australian Journal of Administrative Law	24	5%	17%
4	Law in Context	18	4%	21%
5	Australian Journal of Family Law	15	3%	24%
6	Company and Securities Law Journal	12	3%	26%
7	Torts Law Journal	9	2%	28%
8	Contemporary Issues in Law	9	2%	30%
9	Law and Policy	9	2%	32%
10	International Journal of the Legal Profession	9	2%	34%
11	Australian Journal of Corporate Law	9	2%	36%
12	Australian Journal of Labour Law	9	2%	38%
13	Journal of Judicial Administration	9	2%	40%
14	Federal Law Review	9	2%	42%
15	Australian Journal of Legal Philosophy	6	1%	43%
16	Forensic Science International	6	1%	45%
17	Legal Theory	6	1%	46%
18	Revenue Law Journal	6	1%	47%
19	AIAL National Lecture Series on Administrative Law	6	1%	48%
20	Intertax: international tax review	6	1%	50%
	<b>Total</b>	<b>465</b>		
<i>Please note that this is not based on any university's submission to ERA 2010</i>				

# Interdisciplinary and enabling research (the 'Clawback'...)

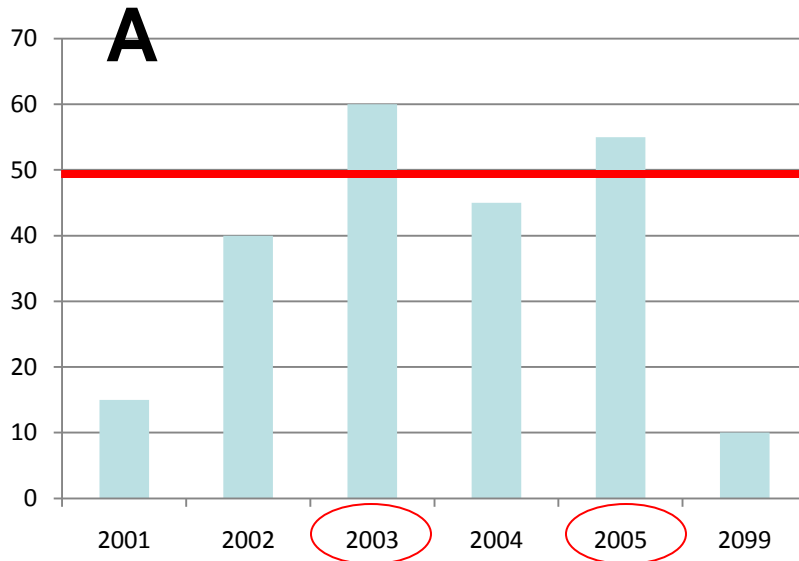
- Journal articles with  $\geq 66\%$  content in a discipline can be apportioned to that discipline
- Approach was successfully trialled in 2010 for Mathematics
- Allows stronger recognition of interdisciplinary and applied research
- Aligns journals with other output types



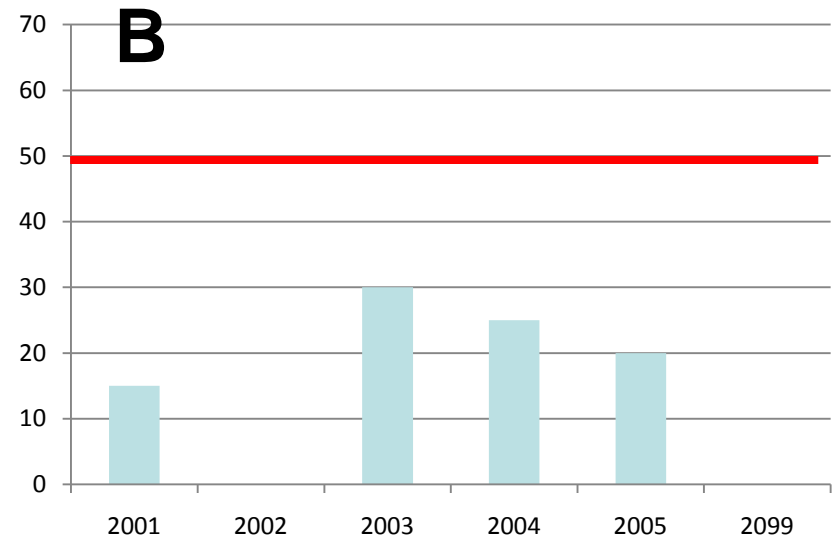
## Raising the threshold

- Low volume threshold for peer review disciplines raised to 50 apportioned weighted outputs (maintaining the 5:1 weighting for books) – applies to Pure Mathematics and ICT disciplines (08 and some of 10)
- Threshold remains the same for citation analysis disciplines
- Aligns all disciplines at 50 outputs
- Recognises strong feedback from sector and from 2010 evaluators
- ERA units need sufficient volume

# Low volume scenarios



In both cases, **all outputs** will be assessed at the two-digit level



## Other changes for ERA 2012

- Eligibility of fractional staff
- Patents, plant breeder's rights and registered designs assigned to individuals now eligible for submission
- Cluster structure revised in the light of information from ERA 2010
- Some adjustments to indicator sets used in the discipline matrix
- Construction of the pool of outputs for peer review (30%)

## ERA 2012 – still to do



- Recruitment of Research Evaluation Committees
- Expansion of peer reviewer pool
- Citation data provider has been announced – Scopus
- Submission Guidelines and technical documentation have been released
- Submission and beyond

# Further information

- **Web:**      [www.arc.gov.au/era](http://www.arc.gov.au/era)
- **Email:**    [era@arc.gov.au](mailto:era@arc.gov.au)
- **Hotline:**   **02 6287 6755**