



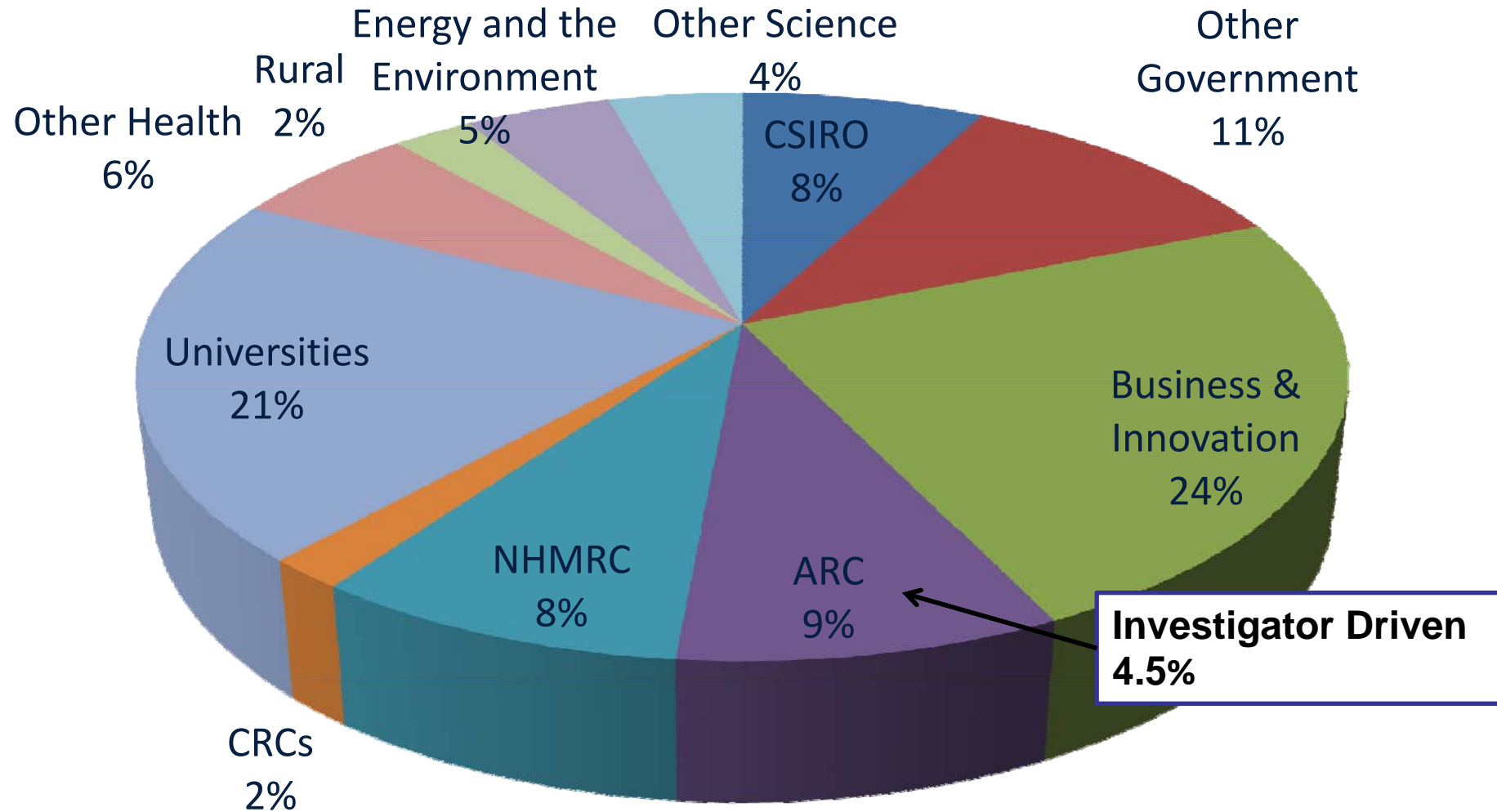
**Australian Government**  
**Australian Research Council**

# Excellence in Research for Australia



**ACEDD**  
**27 October 2011**

# Government Investment in R&D 2011-12



## ERA - Objectives

- 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 Unit of Evaluation

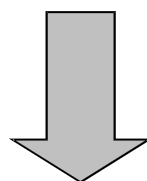
- The **baseline** - the Discipline in an institution = Four-digit Field of Research Code (ANZSRC) eg.,  
**0502 Environmental Science and Management**
- The **higher perspective** – the division in an institution = Two-digit Field of Research Code (ANZSRC) eg.,  
**05 Environmental Sciences**
- The ERA Unit is not about the department nor the individual researcher



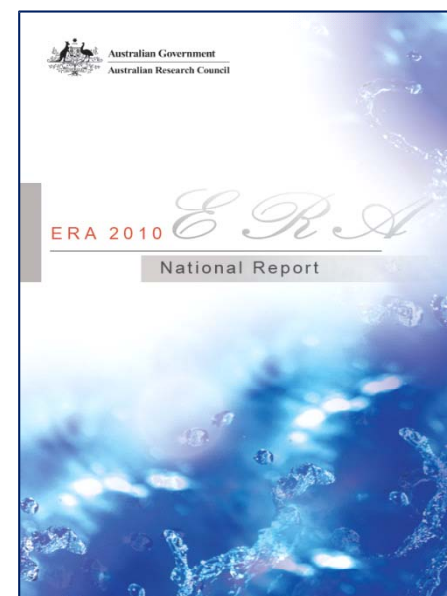
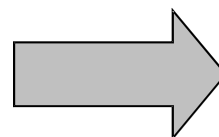
# ERA Process Overview

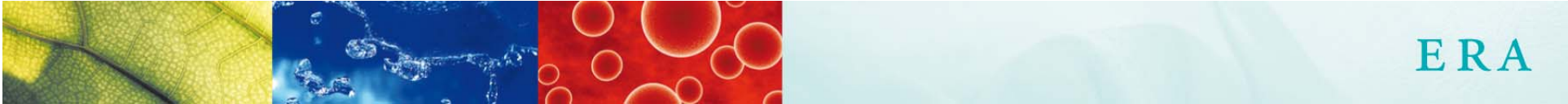
- Volume and Activity
- Journal quality
- Citation analysis or peer review
- Research Income
- Applied Measures
- Esteem

**Please note –  
no weightings**



**Research Evaluation  
Committee**





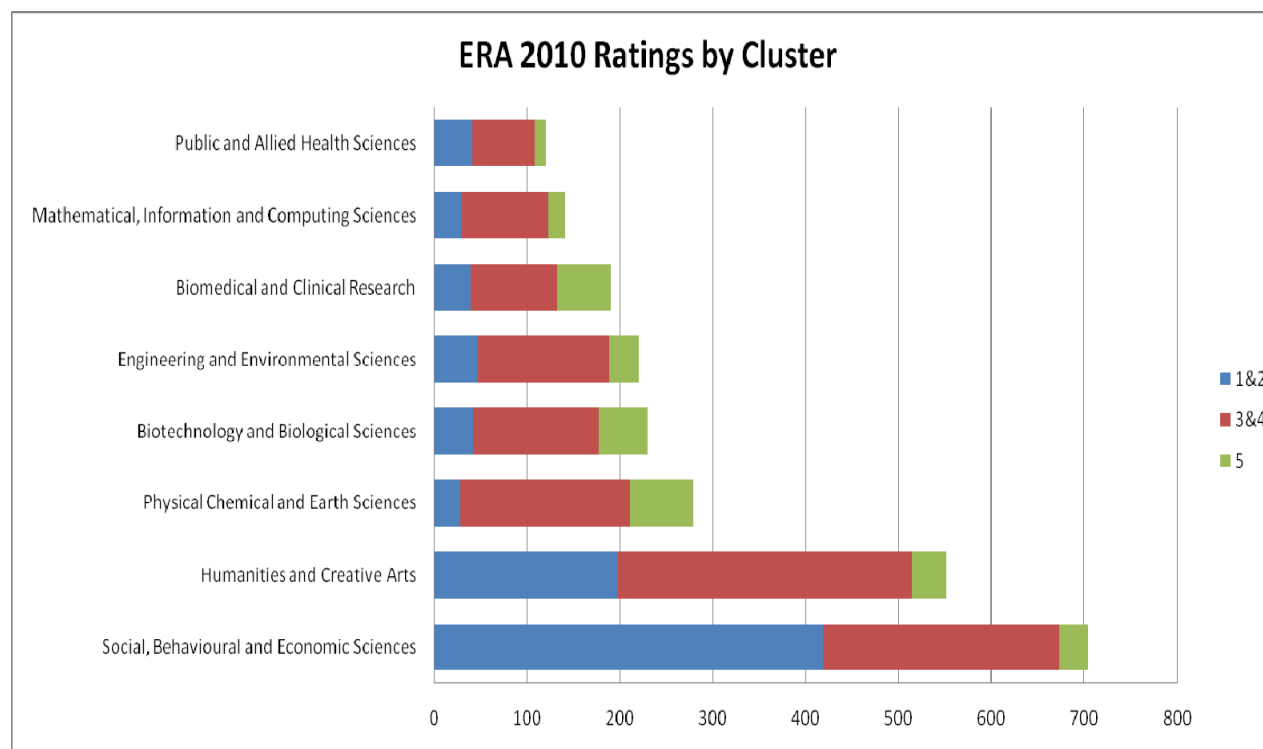
# ERA 2010 Myths



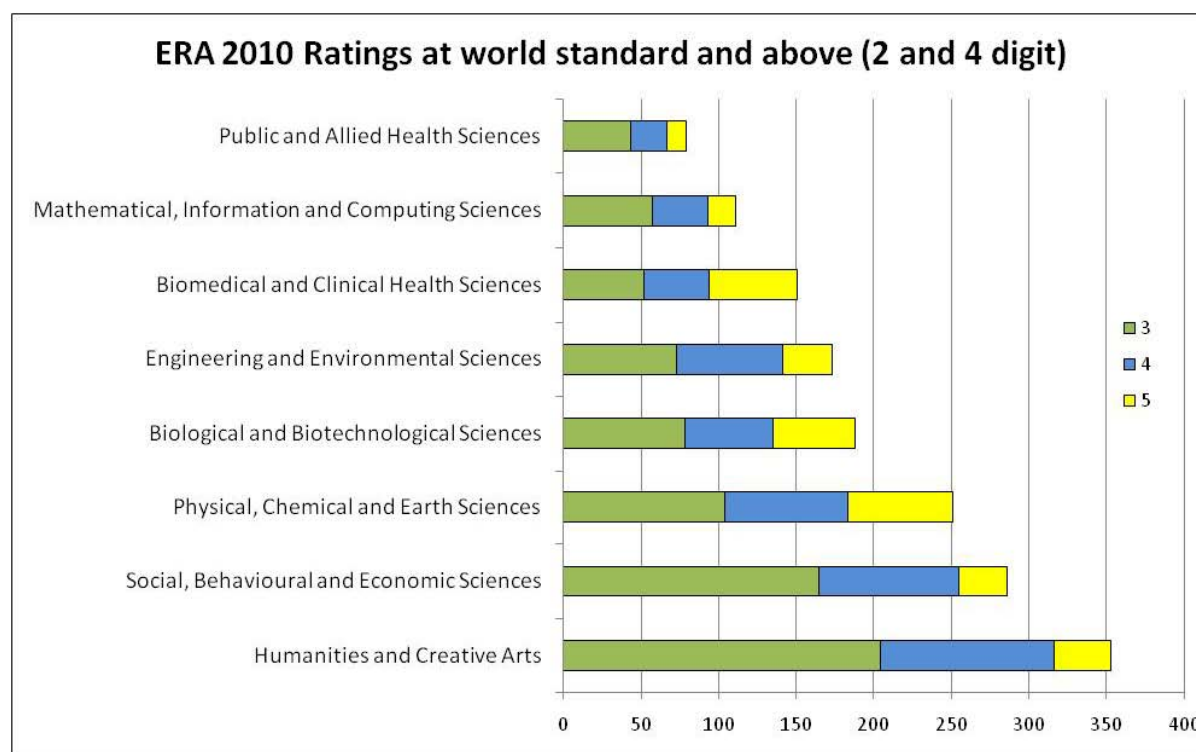
## ERA 2010 at a glance

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

# ERA Ratings by ERA 2010 Cluster



# ERA Ratings at 'world standard and above' by ERA 2010 Cluster



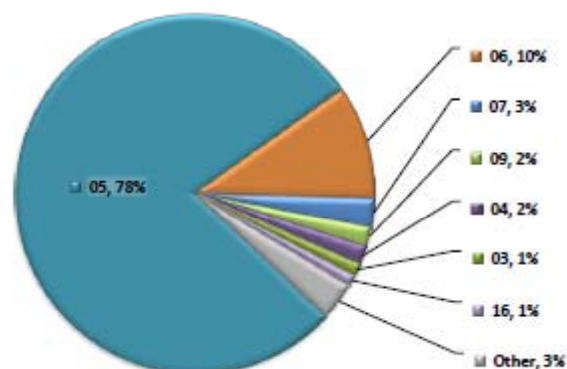
## ERA 2010 submissions

- Institutional data submission smoother than Trial
- Institutional repositories generally functioned well
- Definition of research – still some 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

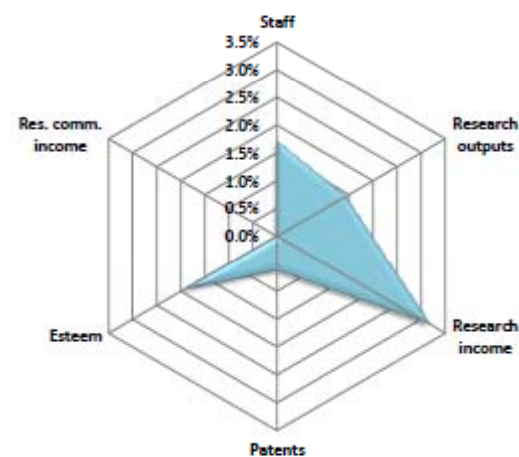
## 05 Environmental Sciences

Engineering and Environmental Sciences							
05 Environmental Sciences							
% assessed UoEs rated at or above world standard  <b>83%</b>	FTEs	665	Esteem count(s)			77	Average National Rating  <b>3.6</b>
	Research outputs	4,695	Patent(s)			4	
	Research income \$	237,077,004	Res. comm. income (\$)			28,091	
	UoEs assessed	30					
	Rating:	1	2	3	4	5	Total
	Distribution:	0	5	8	11	6	30

Disciplinary profile

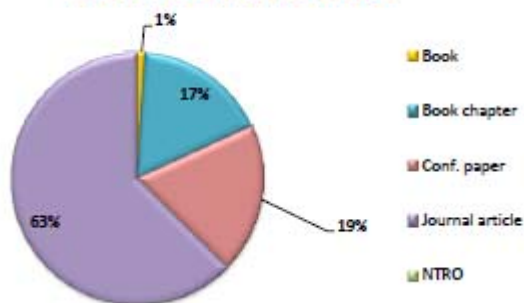


Contribution to national landscape (%)

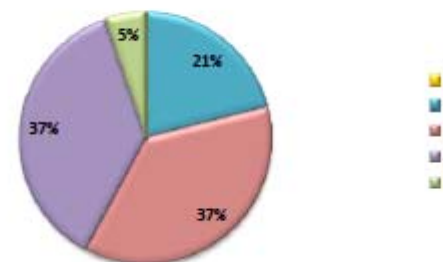


0502 Environmental Science and Management							
% assessed UoEs rated at or above world standard  <b>79%</b>	FTEs	424	Esteem count(s)			49	Average National Rating  <b>3.3</b>
	Research outputs	3,065	Patent(s)			0	
	Research income \$	183,957,263	Res. comm. income (\$)			28,091	
	UoEs assessed	19					
	Rating:	1	2	3	4	5	Total
	Distribution:	0	4	7	7	1	19

Research outputs by type



FoR rating distribution



Biological Sciences and Biotechnology							
06 Biological Sciences							
% assessed UoEs rated at or above world standard  <b>82%</b>	FTEs	3,313			Esteem count(s)	412	Average National Rating  <b>3.5</b>
	Research outputs	23,404			Patent(s)	96	
	Research income \$	893,606,552			Res. comm. income (\$)	16,650,189	
	UoEs assessed	132					
	Rating:	1	2	3	4	5	Total
	Distribution:	5	19	43	32	33	132

Biological Sciences and Biotechnology							
07 Agricultural and Veterinary Sciences							
% assessed UoEs rated at or above world standard  <b>89%</b>	FTEs	1,021			Esteem count(s)	60	Average National Rating  <b>3.7</b>
	Research outputs	8,539			Patent(s)	35	
	Research income \$	442,957,203			Res. comm. income (\$)	23,809,735	
	UoEs assessed	36					
	Rating:	1	2	3	4	5	Total
	Distribution:	0	4	10	16	6	36

## 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 has still produced a journal list – does not include rankings but does 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>				

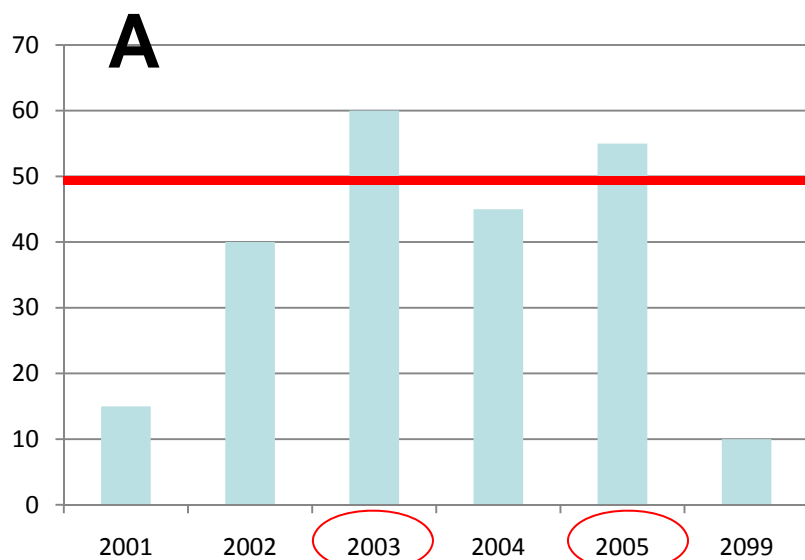
## Interdisciplinary and enabling research

- 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

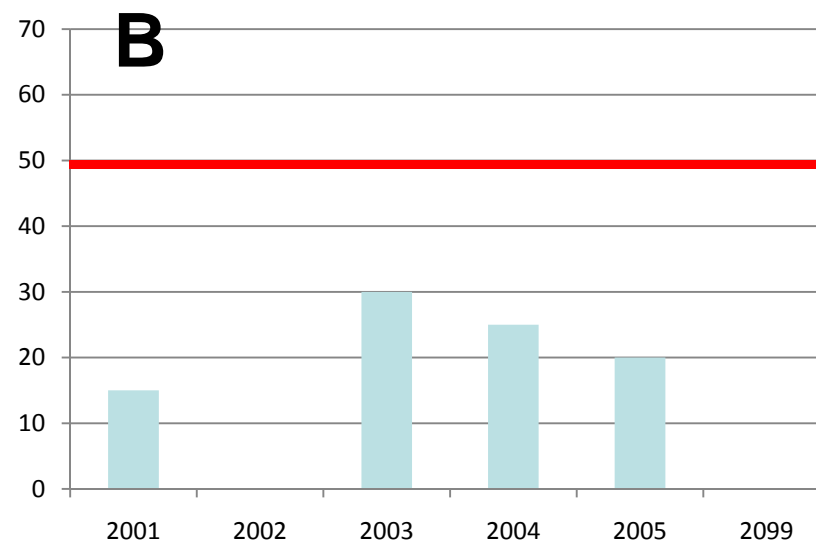
## Raising the threshold

- Low volume threshold for peer review disciplines raised to 50 apportioned weighted outputs (maintaining the 5:1 weighting for books)
- 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



## Eligibility of fractional staff

- Fractional staff: minimum 40% appointment at ERA census date
- Those below 40% can still submit with by-line or similar requirement (similar to existing approach for casuals)
- Addresses concern about ERA-driven “poaching”
- Recognises that in many cases those below 40% are legitimately employed – their outputs can still be submitted

## Other changes for ERA 2012

- 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 (e.g. ICT disciplines)
- Construction of the pool of outputs for peer review (30%)
- Citation data provider has been announced – Scopus

## ERA 2012 – still to do

- Recruitment of Research Evaluation Committees
- Expansion of peer reviewer pool
- 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