



**Australian Government**  

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**Australian Research Council**

# Excellence in Research for Australia

**Australian Technology Network Conference 2010**  
**2 February 2010**

Research

# 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.

# General ERA Principles

1. Unit of Evaluation is the four-digit ANZSRC Field of Research code (ie. 157 possible **Units of Evaluation**); evaluation occurs at the two-digit level as well
2. Evaluation by **Research Evaluation Committees** in discipline clusters; eight clusters in total
3. There is a minimum level of output for a discipline to be considered '**research active**' for evaluation in ERA
4. Evaluations informed by a '**dashboard**' of discipline-specific indicators
5. Some **peer review of outputs** accessed through institutional **repositories** in some clusters

# The ERA Clusters

<b>Cluster 1</b>	<b>Physical, Chemical &amp; Earth Sciences</b>
<b>Cluster 2</b>	<b>Humanities and Creative Arts</b>
Cluster 3	Engineering and Environmental Sciences
Cluster 4	Social, Behavioural and Economic Sciences
Cluster 5	Mathematics, Information and Communication Sciences
Cluster 6	Biological Sciences and Biotechnology
Cluster 7	Biomedical and Clinical Research
Cluster 8	Public and Allied Health, and Health Sciences

# The ERA Unit of Evaluation

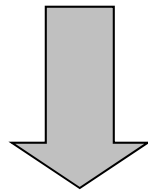
- The **baseline** - the Discipline in an institution = Four-digit Field of Research Code (ANZSRC) eg.,  
**2002 Cultural Studies**
- The **higher perspective** – the division in an institution = Two-digit Field of Research Code (ANZSRC) eg.,  
**20 Language, Communication and Culture**
- The ERA Unit is not the department nor the individual researcher



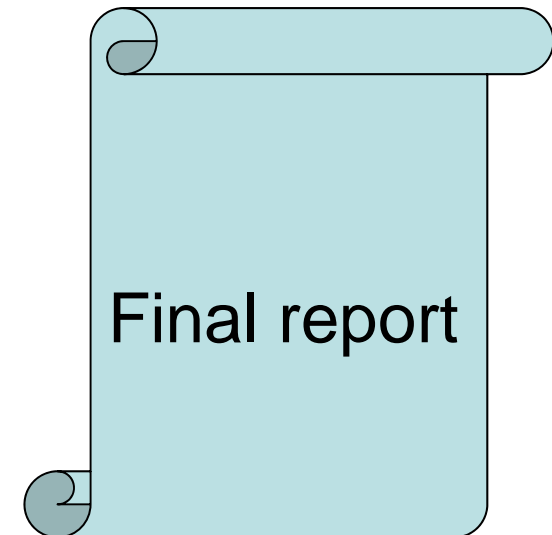
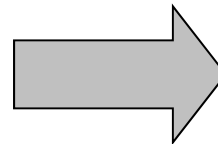
# ERA Process Overview

Metrics Profile 1	Metrics Profile 2
Metrics Profile 3	Metrics Profile 4
Metrics Profile 5	Metrics Profile 6
Peer Review	

Note - There are no weightings!



Research Evaluation  
Committee



# Consultation – 2008 -2010

- Metrics methodology – expert committees
- Discipline-specific indicators
- Ranked journals and conferences
- Advice from the Research Evaluation Committees and peer reviewers who participated in the trial
- Sector feedback

# The ERA Trial in 2009

- Testing the methodologies
- Two clusters were selected for trial
  - PCE - metrics based
  - HCA - combination of metrics and peer review
- Trial RECs formed
  - HCA chaired by Professor Graeme Turner from the University of Queensland (22 members)
  - PCE chaired by Professor Mark von Itzstein from Griffith University (17 members)

# Summary of the 2009 Trial Submissions

- **Cluster 1** (Physical, Chemical and Earth Sciences)
  - 39 out of 41 institutions submitted data
  - Just over 40,000 research outputs were submitted
- **Cluster 2** (Humanities and Creative Arts)
  - All 41 institutions submitted data
  - Just over 47,000 research outputs were submitted including 7,000 creative works

# Indicators for 2009 Trial

- **Volume and Activity**
  - Profiles showing research outputs and staffing
- **Citation Analysis (PCE)**
  - Relative Citation Impact (RCI) against world and Australian institution benchmarks.
- **Peer Review (HCA)**
- **Ranked Journals**
- **Research Income**
  - Broken down into categories and profiled against field average benchmarks using full-time equivalent (FTE) staff numbers
- **Applied**
  - Patents sealed & Commercialisation income

# What was reported from the Trial?

- **Institution reports** (only to each institution):
  - Ratings for each assessable Unit of Evaluation, plus Committee comments
  - Feedback to institutions about their submission, repositories, data integrity etc.
- **National report** on the ARC website

# Some issues from the Trial

- Data integrity and validation
  - No FTE data
  - No information about authors, or partial author lists
  - No Background Statement or incomplete
  - Incomplete Research Statements
  - Duplication of some output data
  - Incorrect EID tagging of outputs
- Does the output really meet the ERA definition of research?
- Repository access and access to non-repository items for peer review

## Addressing the issues from the Trial

- ‘Soft close’ for submission to allow time to correct errors in 2010
- Sneak peek – plans for an early Dashboard
- Portfolios – eg non-traditional outputs, with attached research statement
- Apportionment – outputs apportioned by institutions into FoR codes up to 100%
- Peer review – institutions able to nominate preferred FoR in which output is to be reviewed
- Research statements will remain at 250 words

## What's ahead?

- Submission Guidelines and Technical Specifications were released in December 2009
- ERA Submissions open 1 June 2010
- Full ERA process commencing in 2010 – all eight clusters evaluated simultaneously
- ARC has to:
  - Finalise journal lists
  - Work with institutions on repositories
  - Setting up eight committees and peer reviewers
  - Further system development (SEER)

# ERA 2010 Submission Guidelines – frequently asked questions

- Background statements – more detail on requirements in 2010 guidelines
- Research themes not mandatory
- Portfolios – example included in sample xml files released in December 2009

## FAQ - Low Volume Thresholds

- For disciplines where citation analysis is used:
  - 50 or more indexed journal articles
- For disciplines where peer review is used:
  - ERA Trial: 20 (equivalent) or more outputs
  - ERA 2010: threshold raised to 30 outputs
- In cases of low volume at the four-digit level, analysis can still occur at the two-digit level if it reaches the threshold.
- Note books weighted 5:1 for threshold calculation, not for evaluation

## FAQ - Peer Review

- Peer review is an example of an indicator used for specific disciplines
- Peer review is identified as an indicator for HCA, SBE, parts of EE and MIC
- Peer review is one “indicator” on the Dashboard
- Institutions identify 20% of outputs for the peer review pool
- REC Members undertake expert review of the Dashboard **including** peer review of research outputs.
- Peer Reviewers **only** evaluate research quality based on peer review outputs, and their reports go back to REC Members

## FAQ - Ranked Outlets

- What is happening with the journal ranking process for 2010?
- What do the next steps involve?
- What's happening with ranked conferences?

# Mythbusting - Ranked Journals

- Only one of a number of indicators on the “Dashboard”
- Indicators are not weighted in ERA
- Required for development of discipline-specific benchmarks for citation analysis
- Note discipline-specific practices  
CMP/Nursing

## FAQ - Esteem Indicators

- Consultation undertaken
- There is a limited list of Esteem indicators addressed in *Submission Guidelines* for full ERA process in 2010
- Shown as a **metric** profile – no information on individuals

## 2010 - Repositories

- Peer Review requires access to range of research outputs via Institutional Repositories or non-repository items
- For Creative Works, you need a Research Statement
- Portfolios – the sum of creative works, you also need a Research Statement
- Multiple copies of research outputs if a non-repository item
- Trial was very useful to identify key issues and the ARC is working with institutions to improve repository access for 2010.

# What's next?

## ARC

- The Research Evaluation Committees
- Peer Reviewers
- The evaluation commencing in 2010

## Institutions

- Tagging research outputs – EIDs with Scopus service
- Preparing submission data and repository material for 1 June deadline
- Supporting peer review process – preparing for access to non-repository outputs as part of evaluation

# Further information?

- [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

