Excellence in Research for Australia

National Tertiary Education Union
Indigenous Forum

8 May 2010
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 too

2. Evaluation by Research Evaluation Committees in discipline clusters; Eight Clusters in total

3. There is a minimum level of output 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

<table>
<thead>
<tr>
<th>Cluster 1</th>
<th>Physical, Chemical &amp; Earth Sciences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cluster 2</td>
<td>Humanities and Creative Arts</td>
</tr>
<tr>
<td>Cluster 3</td>
<td>Engineering and Environmental Sciences</td>
</tr>
<tr>
<td>Cluster 4</td>
<td>Social, Behavioural and Economic Sciences</td>
</tr>
<tr>
<td>Cluster 5</td>
<td>Mathematics, Information and Computing Sciences</td>
</tr>
<tr>
<td>Cluster 6</td>
<td>Biological and Biotechnological Sciences</td>
</tr>
<tr>
<td>Cluster 7</td>
<td>Biomedical and Clinical Health Sciences</td>
</tr>
<tr>
<td>Cluster 8</td>
<td>Public and Allied Health Sciences</td>
</tr>
</tbody>
</table>
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** the department nor the individual researcher
ERA Process Overview

<table>
<thead>
<tr>
<th>Metrics Profile 1</th>
<th>Metrics Profile 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metrics Profile 3</td>
<td>Metrics Profile 4</td>
</tr>
<tr>
<td>Metrics Profile 5</td>
<td>Metrics Profile 6</td>
</tr>
</tbody>
</table>

Peer Review (if included)

Note - There are no weightings

Research Evaluation Committee

Final report

Web: arc.gov.au  |  Email: info@arc.gov.au
A quick history of ERA

- Consultation 2008–2010
- Trial for 2009
- ERA – the future
Consultation – 2008 -2010

• Metrics methodology – expert committees
• Discipline-specific indicators
• Ranked journals and conferences
• Esteem measures
• Advice from the Research Evaluation Committees and peer reviewers who participated in the trial
• Sector feedback
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)
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
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 or more outputs
  - ERA commencing in 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
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 general 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
Mythbusting - Ranked Outlets

• Only **one** of a number of indicators on the “Dashboard”

• Ranked Journals required for development of discipline-specific benchmarks for citation analysis

• Ranked conferences essential for IT, Engineering & Built Environment

• Note discipline-specific practices
ERA – The future
ERA – What’s ahead?

- Submission Guidelines and Technical Specifications were released in December 2009
- The full list of ranked journals and conferences is out now
- ERA Submissions open 1 June 2010
- ARC has to:
  - Work with institutions on repositories
  - Set up eight committees and identify pool of peer reviewers
  - Do further system development (SEER)
  - Conduct the full ERA process commencing in 2010 – all eight clusters evaluated simultaneously
Advice from Consultation

• appoint experts on RECs and for peer review
• provide training for RECs by senior indigenous scholars
• membership of AIATSIS as a relevant esteem measure
• indigenous research theme tag
• culturally-sensitive research output tag
## The New Rating Scale

<table>
<thead>
<tr>
<th>Rating</th>
<th>Descriptor</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>The Unit of Evaluation profile is characterised by evidence of outstanding performance <strong>well above world standard</strong> presented by the suite of indicators used for evaluation.</td>
</tr>
<tr>
<td>4</td>
<td>The Unit of Evaluation profile is characterised by evidence of performance <strong>above world standard</strong> presented by the suite of indicators used for evaluation.</td>
</tr>
<tr>
<td>3</td>
<td>The Unit of Evaluation profile is characterised by evidence of average performance <strong>at world standard</strong> presented by the suite of indicators used for evaluation.</td>
</tr>
<tr>
<td>2</td>
<td>The Unit of Evaluation profile is characterised by evidence of performance <strong>below world standard</strong> presented by the suite of indicators used for evaluation.</td>
</tr>
<tr>
<td>1</td>
<td>The Unit of Evaluation profile is characterised by evidence of performance <strong>well below world standard</strong> presented by the suite of indicators used for evaluation.</td>
</tr>
<tr>
<td>NA</td>
<td>Not assessed due to low volume. The number of research outputs does not meet the volume threshold standard for evaluation in ERA.</td>
</tr>
</tbody>
</table>
Peer Review

- Peer review will be used for some disciplines
- In 2010 peer review is identified as an indicator for HCA, SBE, parts of EE and MIC
- Peer review is only one “indicator” on the Dashboard
- Institutions identify 20% of outputs for the peer review pool – best works for the discipline
- 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
- No ratings on individual research outputs
Esteem Indicators

- Consultation on esteem was undertaken
- A proxy for quality that is well understood
- There is a limited list of esteem indicators addressed in *Submission Guidelines* for the ERA process commencing in 2010
- It is shown as a metric profile – no information on individuals
Further information?

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