Excellence in Research for Australia Initiative

Liz Visher, Director, Outreach
Why ERA?

Objectives of ERA

1. Establish an evaluation framework that gives government, industry, business and the wider community assurance of the excellence of research conducted in Australia’s institutions;

2. 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;

3. Identify excellence across the full spectrum of research performance;

4. Identify emerging research areas and opportunities for further development;

5. 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 Units of Evaluation); also evaluation at two-digit level

2. evaluation by Research Evaluation Committees in discipline clusters; 8 Clusters in total

3. minimum level of output to be considered ‘research active’ for evaluation

4. evaluations informed by a ‘dashboard ‘ of discipline-specific indicators

5. some peer review of outputs accessed through institutional repositories
The ERA Unit of Evaluation

- The **baseline** - the Discipline in an institution = Four-digit Field of Research Code (ANZSRC) eg., 1901 Art Theory and Criticism
- The **higher perspective** – the division in an institution = Two-digit Field of Research Code (ANZSRC) eg., 19 Studies in Creative Arts and Writing
- The ERA Unit is **not** about the department or the individual researcher
# ERA Clusters

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Field</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cluster 1</td>
<td>Physical, Chemical &amp; Earth Sciences</td>
</tr>
<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 Communication Sciences</td>
</tr>
<tr>
<td>Cluster 6</td>
<td>Biological Sciences and Biotechnology</td>
</tr>
<tr>
<td>Cluster 7</td>
<td>Biomedical and Clinical Research</td>
</tr>
<tr>
<td>Cluster 8</td>
<td>Public and Allied Health, and Health Sciences</td>
</tr>
</tbody>
</table>
Interdisciplinary and Multidisciplinary Research

- ERA is a discipline-based evaluation
- Re-assignment of Two-digit and multi-disciplinary outputs
- Institutional tools (not part of evaluation)
- The ‘big bang’
Discipline Profile – 4-digit level

![Chart showing discipline profiles for 2101 - Archaeology, 0607 - Plant Biology, 1901 - Art History, and 0305 - Organic Chemistry.]
## Discipline Matrix

### Cluster Two: Humanities and Creative Arts Discipline Matrix

<table>
<thead>
<tr>
<th>FoR</th>
<th>DISCIPLINE</th>
<th>VOLUME AND ACTIVITY ANALYSIS</th>
<th>RANKED OUTLETS</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>Built Environment and Design</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1201</td>
<td>Architecture</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>1203</td>
<td>Design Practice and Management</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>1205</td>
<td>Urban and Regional Planning</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>1299</td>
<td>Other Built Environment and Design</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>18</td>
<td>Law and Legal Studies</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>1891</td>
<td>Law</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>1892</td>
<td>Mozi Law</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>1899</td>
<td>Other Law and Legal Studies</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>19</td>
<td>Studies in Creative Arts and Writing</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>1901</td>
<td>Art History and Criticism</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>1902</td>
<td>Film, Television and Digital Media</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>1903</td>
<td>Journalism and Professional Writing</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>1904</td>
<td>Performing Arts and Creative Writing</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>1905</td>
<td>Visual Arts and Crafts</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>1999</td>
<td>Other Studies in Creative Arts and Writing</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>20</td>
<td>Language, Communication and Culture</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>2001</td>
<td>Communication and Media Studies</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>2002</td>
<td>Cultural Studies</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>2003</td>
<td>Languages Studies</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>2004</td>
<td>Languages</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>2005</td>
<td>Literary Studies</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>2099</td>
<td>Other Languages, Communication and Culture</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>21</td>
<td>History and Archaeology</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>2101</td>
<td>Archaeology</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>2102</td>
<td>Curatorial and Related Studies</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>2103</td>
<td>Historical Studies</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>2199</td>
<td>Other History and Archaeology</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>22</td>
<td>Philosophy and Religious Studies</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>2201</td>
<td>Applied Ethics</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>2202</td>
<td>History and Philosophy of Specific Fields</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>2203</td>
<td>Philosophy</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>2294</td>
<td>Religion and Religious Studies</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>2299</td>
<td>Other Philosophy and Religious Studies</td>
<td>✓</td>
<td>✓</td>
</tr>
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Overview of ERA Evaluation

Key Documents
- Submission close
- Validation
- Pool of items for peer review

Submission Guidelines
- Sort by unit of evaluation 4 & 2-digit – volume threshold
- Agreed application of evaluation methodology

Indicator Benchmark Methodology
- Assignment to Research Evaluation Committee and Peer Reviewers

Evaluation Guidelines
- REC and Peer Reviewers
  - Evaluation
  - Prepare for meeting – (REC only)

- Evaluation meeting
  - Finalise rating(s)/outcomes
- CEO report

- CEO report to Minister on trial

- Report to the public on national outcomes and separate report to institutions on results

Web: arc.gov.au   Email: info@arc.gov.au
Evaluation 2009

**Outputs**
- Ranked Journals
- Citation Analysis or Peer Review

**Supporting Information**
- Volume and Activity – outputs and people
- HERDC Research Income
- Applied Indicators – Patents and Commercialisation income
- 2-digit background statement

**Next round – may include:**
- New ranked outlets, esteem measures, applied measures
- Research Evaluation committees and peer reviewers
Low Volume Thresholds

- For disciplines where citation analysis will be used:
  - 50 or more indexed journal articles

- For disciplines where peer review will be used:
  - 20 or more journal articles (or equivalent)

- In cases of low volume at the four-digit level, analysis can occur at the two-digit level
The Dashboard profiles
Ranked Journals

• Only one of a number of indicators on the “Dashboard”
• It assists with the assignment of a research output to the appropriate discipline(s) and cluster
• Required for development of discipline-specific benchmarks for citation analysis
• Note discipline-specific practices CMP/Nursing
Peer Review

- Peer review is identified as an indicator for HCA
- Peer review is one “indicator” on the Dashboard
- Institutions identify up to 20% of outputs for the peer review pool
- REC Members will undertake expert review of the Dashboard including peer review of a sample of research outputs.
- Peer Reviewers only evaluate research quality based on sample of outputs and their reports go back to REC Members
ERA Trial 2009

- Two clusters selected for trial for the breadth of information the trial will provide
- PCE metrics based
- HCA combination of metrics and peer review
- RECs formed
  - HCA chaired by Professor Graeme Turner from Queensland (22 members)
  - PCE chaired by Professor Mark von Itzstein from Griffith (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
Some issues from the Trial

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

• RECs providing advice to the ARC in light of their experience
• ARC will continue to provide support to improve the quality of institutional databases for ERA purposes
• Submission Guidelines and SEER documentation released soon for early advice to the sector
• Soft close for submission to allow time to correct errors?
Learnings

ARC
• Linked schema
• Better data validation
• Soft close for submission to allow time to correct errors
• Provision of support to improve institutional publication databases

Universities
• Improve quality of institutional databases
• Data handling
• Data linking across indicators
• Ability to analyse ERA results to identify specific strengths
Reporting of outcomes

PCE 2009 Evaluation
• Outcomes for PCE trial expected by November 2009
• Report to institutions

HCA 2009 Evaluation
• Outcomes for HCA trial expected by December 2009
• Report to institutions

ARC national report on PCE and HCA trial outcomes
What data will the ARC return to Universities?

**Institution report**

- Static citation count for each indexed article
- Australian (HEP) benchmarks for each year of the reference period (by FoR)
- World benchmarks for each year of the reference period (by FoR)
- Centile citation thresholds for each year of the reference period (by FoR)
- Ratings for Units of Evaluation, plus Committee comments
Latest focus points

- PCE and HCA trial – conduct, reporting and evaluation
- Finalising the journal rankings lists for all Clusters – expert consultation
- Discipline-specific indicators - consultation
- Preparation for the full ERA process
What Next?

• Submission guidelines/Tech Specifications
• Setting up for Big Bang
• Evaluation Guidelines
• System development
Further information?

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