Excellence in Research for Australia

ERA 2010 and beyond
Deakin University
1-2 June 2011
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 Process Overview

<table>
<thead>
<tr>
<th>Volume &amp; Activity</th>
<th>Ranked Outlets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citation Analysis</td>
<td>Esteem</td>
</tr>
<tr>
<td>Research Income</td>
<td>Applied Measures</td>
</tr>
</tbody>
</table>

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)
• 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

<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>
</tbody>
</table>
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

<table>
<thead>
<tr>
<th>01 Mathematical Sciences</th>
<th>FTEs</th>
<th>Research outputs</th>
<th>Research income</th>
<th>esteem count(s)</th>
<th>Patent(s)</th>
<th>Research commer. Income</th>
<th>Average National Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>% assessed UoEs rated at or above world standard</td>
<td>86%</td>
<td>880</td>
<td>8,659</td>
<td>104,624,740</td>
<td>106</td>
<td>22,368,469</td>
<td>3.4</td>
</tr>
<tr>
<td>Rating</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>Total</td>
<td>Distribution:</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>7</td>
<td>25</td>
<td>16</td>
<td>9</td>
<td>58</td>
<td></td>
</tr>
</tbody>
</table>

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

There were seven UoEs which received a rating of 2.
ERA 2010 submissions

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

• Several rounds of consultation on journals, indicators, processes

• ARC has reviewed feedback from the sector and from ERA 2010 reviewers
Consultations for ERA 2012

• ERA Public Consultation (11 March to 7 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
Changes for ERA 2012

• 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 journal and conference lists – will not include rankings but will include FoR codes
• Journal articles with ≥66% content in a discipline can be apportioned to that discipline
Changes for ERA 2012 (cont.)

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

• Fractional staff: minimum 40% appointment at census date, with ability for those below 40% to submit where affiliation is shown (e.g. through use of a by-line)

• Patents, plant breeder’s rights and registered designs assigned to individuals now eligible for submission
Further information

• Web:  www.arc.gov.au/era

• Email:  era@arc.gov.au

• Hotline:  02 6287 6755