Australian Government
Australian Research Council

Excellence in Research for Australia

University of New England
4 February 2013
Objectives of ERA

- Establish an *evaluation framework*;
- Provide a *national stock take* of discipline-level research;
- 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.
Introduction to ERA

• ERA is a *retrospective evaluation* of research performance: 2005-2010 for research outputs, 2008-2010 for other data.

• The *ERA unit of evaluation* (UoE) 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.
The ERA Unit of Evaluation (UoE)

- The *Unit of Evaluation* for ERA is the research discipline for each institution as defined by FoR codes.
- 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
Low Volume Thresholds

• The low volume threshold was 50 apportioned journal articles

• 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 in peer review disciplines for threshold calculation, not for evaluation
History of ERA

- Consultation 2008–2010
- ERA 2009 Trial
- ERA 2010
- ERA 2012
- Future ERA - 2015
Consultations for ERA 2012

- **ERA Public Consultation** – 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 processes
Consultation Topics

- Metrics methodology – expert committees
- Discipline-specific indicators
- Ranked journals and conferences
- Low volume threshold
- Submission rules including researcher eligibility
- Reporting of outcome data
Key changes for ERA 2012

- Expansion and strengthening of *Peer Review*
- *Reassignment Exception*
- Consistent *Low Volume Threshold* for Peer Review Disciplines
- *Ranked journals and conferences* not used
- *Movement* from Citation Analysis to Peer Review Disciplines
- *Non-traditional* Research Outputs in social sciences
- Restructure of *clusters*
- Attribution of *Applied Measures* to individuals and institutions
ERA 2012 Reference Periods

- **Outputs Reference period**: 2005 - 2008
- **Income, applied, esteem period**: 2009 - 2010
- **Staff census (March 31st)**: 2011
- **Additional 14 month period for citations**: 2010
- **Citations derived (March 1st)**: 2012
### ERA Process Overview

<table>
<thead>
<tr>
<th>Indicator Suite</th>
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<tbody>
<tr>
<td>Citation Analysis and/or Peer</td>
<td>Publishing Profile</td>
</tr>
<tr>
<td>Review</td>
<td></td>
</tr>
<tr>
<td>Volume and Activity</td>
<td>Research Income</td>
</tr>
<tr>
<td>Applied Measures</td>
<td>Esteem</td>
</tr>
</tbody>
</table>

Note - There are no weightings

**Evaluation Stages**

The **ERA 2012 National Report** presents data submitted as part of a comprehensive assessment by discipline of the research quality and research activity within Australia’s higher education institutions.
Stages of Evaluation

**Stage 1**
REC Members evaluate assigned material and record preliminary evaluations in SEER

**Stage 2A**
REC Members are given access to the preliminary evaluation outcomes for 4-digit UoEs from other REC Members and Peer Reviewers’ evaluations for moderation. REC Members complete preliminary evaluation of 2-digit UoEs.

**Stage 2B**
REC Members are given access to the preliminary evaluation outcomes for 2-digit UoEs from other REC Members and Peer Reviewers’ evaluations for moderation.

**Stage 2C**
REC Members are given view only access to moderated 2- & 4-digit evaluations to prepare for Stage 3 meeting.

**Stage 3**
REC Members meet to finalise all UoEs
ERA 2012 Evaluation Process

- Evaluation of data submitted for ERA 2012 was undertaken by *eight Research Evaluation Committees* (RECs), broadly representative of eight discipline clusters.

- The ERA 2012 RECs were comprised of *147 distinguished and internationally recognised researchers* from Australia and overseas, with expertise in their fields and in research evaluation.

- Further details concerning the ERA 2012 Evaluation process, including moderation and conflict of interest procedures, can be found in the *ERA 2012 Evaluation Handbook*.
Peer Review

- Peer review is used for some disciplines
- In 2012 peer review was identified as an indicator for EHS, EC, HCA, parts of MIC and EE
- Peer review is only one “indicator” on the Dashboard
- Institutions identify **30% 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
- **Peer Reviewer Handbook** is available online
# The ERA Rating Scale

<table>
<thead>
<tr>
<th>Rating</th>
<th>Descriptor</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>5</strong></td>
<td>The Unit of Evaluation profile is characterised by evidence of outstanding performance <em>well above world standard</em> presented by the suite of indicators used for evaluation.</td>
</tr>
<tr>
<td><strong>4</strong></td>
<td>The Unit of Evaluation profile is characterised by evidence of performance <em>above world standard</em> presented by the suite of indicators used for evaluation.</td>
</tr>
<tr>
<td><strong>3</strong></td>
<td>The Unit of Evaluation profile is characterised by evidence of average performance <em>at world standard</em> presented by the suite of indicators used for evaluation.</td>
</tr>
<tr>
<td><strong>2</strong></td>
<td>The Unit of Evaluation profile is characterised by evidence of performance <em>below world standard</em> presented by the suite of indicators used for evaluation.</td>
</tr>
<tr>
<td><strong>1</strong></td>
<td>The Unit of Evaluation profile is characterised by evidence of performance <em>well below world standard</em> presented by the suite of indicators used for evaluation.</td>
</tr>
<tr>
<td><strong>NA</strong></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>
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Key ERA 2012 Documents

The following ERA 2012 documents are all publicly available and provide detailed information about various aspects of the ERA 2012 evaluation:

- ERA 2012 Evaluation Handbook
- ERA 2012 Peer Reviewer Handbook
- ERA 2012 Submission Guidelines
- ERA 2012 Discipline Matrix
- ERA 2012 Journal List
- ERA Rating Scale
- ERA Indicator Principles
- ERA-SEER 2012 Technology Pack
- ERA-SEER 2012 Business Rules
ERA 2012 outcomes
Scale of ERA 2012

- All **41 eligible institutions** submitted data
- Over **413,000 unique research outputs** and **60,000 researchers** represented
- **2,323 units of evaluation** assessed at the two- and four-digit level
- **147 Research Evaluation Committee (REC) members** and close to **900 Peer Reviewers** contributed evaluations
- All aggregated data presented in the **ERA 2012 National Report**.
2010 to 2012: Growth

Bigger and more productive

↑ research publications/outputs (up 24%)
↑ researchers and related staff (up 9%)
↑ patents (up 16%) and esteem measures (up 11%)
↑ Competitive grant ($3.75 billion, up 18%) and other public sector income ($2.39 billion, up 25%)
ERA 2012: All Broad Fields of Research (Two Digit FoR codes)
Number of Universities Rated at World Standard or Higher

- **02 Physical Sciences**
  - At World Standard: 10
  - Above World Standard: 4
  - Well Above World Standard: 6

- **04 Earth Sciences**
  - At World Standard: 4
  - Above World Standard: 9
  - Well Above World Standard: 5

- **06 Biological Sciences**
  - At World Standard: 10
  - Above World Standard: 15
  - Well Above World Standard: 4

- **08 Information and Computing Sciences**
  - At World Standard: 9
  - Above World Standard: 12
  - Well Above World Standard: 2

- **10 Technology**
  - At World Standard: 1
  - Above World Standard: 4
  - Well Above World Standard: 5

- **12 Built Environment and Design**
  - At World Standard: 13
  - Above World Standard: 13
  - Well Above World Standard: 8

- **14 Economics**
  - At World Standard: 7
  - Above World Standard: 11
  - Well Above World Standard: 4

- **16 Studies In Human Society**
  - At World Standard: 5
  - Above World Standard: 17
  - Well Above World Standard: 2

- **18 Law and Legal Studies**
  - At World Standard: 10
  - Above World Standard: 15
  - Well Above World Standard: 9

- **20 Language, Communication and Culture**
  - At World Standard: 12
  - Above World Standard: 15
  - Well Above World Standard: 6

- **22 Philosophy and Religious Studies**
  - At World Standard: 12
  - Above World Standard: 12
  - Well Above World Standard: 5
### Output by Staff Classification

<table>
<thead>
<tr>
<th>Classification</th>
<th>% Staff</th>
<th>% Outputs</th>
</tr>
</thead>
<tbody>
<tr>
<td>03 Chemical Sciences</td>
<td><img src="chart1.png" alt="Staff Bar Chart" /></td>
<td><img src="chart2.png" alt="Outputs Bar Chart" /></td>
</tr>
<tr>
<td>13 Education</td>
<td><img src="chart3.png" alt="Staff Bar Chart" /></td>
<td><img src="chart4.png" alt="Outputs Bar Chart" /></td>
</tr>
</tbody>
</table>
ERA – The future
ERA – Looking Ahead

- Minister has announced *ERA 2015*
- Expand ERA metrics: research application, knowledge exchange and collaboration
- Expand eligible research outputs to include a greater range of applied outputs
- Focus on pathways to impact
- As with existing ‘quality’ indicators, approaches must be tailored to fit the field of research concerned
- Consultation with the sector will be critical
Further information

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Hotline: 02 6287 6755