The Research Agenda?

- An Innovation Agenda for the 21st Century
- Research excellence in an international context
- Research workforce strategy
- Strategic research investment and priorities
- Links and collaboration – nationally and internationally
Government Investment in Research
2011-12

- Business & Innovation: 24%
- Universities: 21%
- Other Health: 6%
- Rural: 2%
- Energy and the Environment: 5%
- Other Science: 4%
- CSIRO: 8%
- ARC: 9%
- Investigator Driven: 4.5%
- Other Government: 11%
- CRCs: 2%
- Other Science: 4%
- Other Health: 6%
- Business & Innovation: 24%

Web: arc.gov.au  |  Email: info@arc.gov.au
What problem were we trying to solve?

- Demonstrate quality/value of investment in university research to government
- Raise the quality of Australian research effort
Australian academic publishing practices

Year that publications measure was introduced

Quartile 1 highest impact

Quartile 4 below median impact

Source: Butler 2002
Excellence in Research for Australia

• 2007 New Government elected with a commitment to replaces RQF with a metrics based approach
• 2008 ARC given responsibility for quality framework
• 2008 Develop policy and case for funding and vice versa
• 2009 ERA Trial in physical sciences and humanities and creative arts
• 2010 ERA Full Evaluation
• 2011 Refinements to framework
• 2012 Next ERA round
**Scale of ERA 2010**

- All 41 eligible institutions submitted data
- Over 330,000 research outputs
- 55,000 researchers represented
- 2,435 units of evaluation assessed at 2 and 4-digit level
- 149 Research Evaluation Committee (REC) members
- 500+ Peer Reviewers

All aggregated data in the *ERA 2010 National Report*. 
ERA Process Overview

- Volume and Activity
- Journal Quality
- Citation analysis or peer review
- Research Income
- Applied Measures
- Esteem

Please note – no weightings
Strengths in Australian universities

- Astronomical and Space Sciences
- Optical Physics
- Quantum Physics
- Macromolecular & Materials Chemistry
- Physical & Structural Chemistry
- Geology
- Ecology
- Evolutionary Biology
- Plant Biology
- Zoology
- Clinical Sciences

- Electrical and Electronic Engineering
- Historical Studies
- Cardiovascular Medicine and Haematology
- Human Movement and Sports Science
- Immunology
- Oncology and Carcinogenesis
- Pharmacology and Pharmaceutical Sciences
- Medical Physiology
Gaps

- Agriculture, Land and Farm Management
- Automotive Engineering
- Maritime Engineering
- Engineering Design
- Complementary and Alternative Medicine

Pockets

- Classical Physics
- Aerospace Engineering
- Transportation and Freight

Strong Applied Research

- Electrical and Electronic Engineering
- Crop and Pasture Protection
- Resources Engineering
- Materials Engineering
- Extractive Metallurgy
- Nursing
ERA 2010 myths

❌ Averages and Rankings
❌ Sciences v. Social Sciences & Humanities

✅ ERA does not evaluate individuals
✅ ERA does not evaluate individual outputs
✅ Ranked Journals did not drive ERA ratings
✅ ERA evaluations utilised metrics and peer review moderated by expert judgement
ERA 2010 Rating by Cluster - at, above, or well above world standard (i.e. 3s, 4s, & 5s)

- Public and Allied Health Sciences
- Mathematical, Information and Computing Sciences
- Biomedical and Clinical Research
- Engineering and Environmental Sciences
- Biotechnology and Biological Sciences
- Physical Chemical and Earth Sciences
- Social, Behavioural and Economic Sciences
- Humanities and Creative Arts

- 3&4
- 5
Changes for 2012

- Changes to the ranked journals and conferences
- Interdisciplinary Research
- Raising the Threshold
- Capturing Applied Research
- Eligibility for fractional staff
Unintended consequences-journal rankings

- Journals only easily accessible information
- Rapid response time
- Codified existing behaviour/practice
- Simplified application
The refined journal indicator

<table>
<thead>
<tr>
<th>University of Y</th>
<th>FoR0201</th>
<th>Astronomical and Space Sciences</th>
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<tr>
<td>3</td>
<td>Nature</td>
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<td>4</td>
<td>Astronomy and Astrophysics: a European journal</td>
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<tr>
<td>5</td>
<td>Geophysical Research Letters</td>
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<tr>
<td>6</td>
<td>Mathematics and Computers in Simulation</td>
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</tbody>
</table>

*Please note that this is not based on any university's submission to ERA 2010*
ERA 2012 – still to do

• Expanding peer reviewer pool

• Making peer review more robust (selection of outputs, reviewers)

• Draft Submission Guidelines to be issued to the sector in July 2011 for comment

• System development and testing
Research Block Funding

- Research Income
- Research Student Completions and Load
- Publications
- ERA

- APAs
- IPRS
- Research Training Scheme
- Joint Research Engagement
- Sustainable Research Excellence
- CTS
The ARC

National Competitive Grants Program
$810M in 11-12

Discovery & Fellowships
$502 M

Linkage & Centres
$308 M

Evaluation and Policy

Excellence in Research for Australia

- Support research excellence
- Funding for facilities and equipment that researchers need to be internationally competitive
- Support future researchers
- Provide incentives for partnerships and collaboration nationally and internationally
The ARC aims to:

- Foster a range of different cohorts
- Create the right incentives for collaboration
• Have we got the balance right?
Overview of the research agenda and the implications of ERA

Financial Review

Higher Education Conference 2011

Professor Margaret Sheil
CEO, Australian Research Council