ARC Strategic Research and Funding

Ms Leanne Harvey
Executive General Manager
Government Investment in Research

$8.5 billion in 2009-10

- Energy & Environment: 10%
- Other Science Support: 8%
- Rural: 8%
- DSTO: 7%
- CSIRO: 6%
- Other R&D Agencies: 5%
- Industry R&D Tax Concession: 4%
- Other business: 3%
- Universities: 20%
- NHMRC and Other Health: 8%
- ARC: 17%
- CRCs: 2%

Web: arc.gov.au | Email: info@arc.gov.au
The ARC

Statutory Agency established 2001

Mission: *to deliver policy and programs that advance Australian research and innovation globally and benefit the community*

Funds direct costs to Universities and partners

All disciplines except clinical medicine & dentistry
ANZSRC FoRs

11 Medical and Health Sciences

- 1101 MEDICAL BIOCHEMISTRY AND METABOLOMICS
- 1102 CARDIOVASCULAR MEDICINE AND HAEMATOLOGY
- 1103 CLINICAL SCIENCES
- 1104 COMPLEMENTARY AND ALTERNATIVE MEDICINE

   - 110401 Chiropractic
   - 110402 Naturopathy
   - 110403 Traditional Aboriginal and Torres Strait Islander Medicine and Treatments
   - 110404 Traditional Chinese Medicine and Treatments
   - 110405 Traditional Maori Medicine and Treatments
   - 110499 Complementary and Alternative Medicine not elsewhere classified

- 1105 DENTISTRY
National Competitive Grants Program (NCGP)

- Support for the highest-quality research leading to the discovery of new ideas and the advancement of knowledge
- Financial assistance towards facilities and equipment that researchers need to be internationally competitive
- Support for the training and skills development of the next generation of researchers
- Incentives for Australia’s most talented researchers to work in partnership with leading researchers throughout the national innovation system and internationally, and to form alliances with Australian industry.
NCGP Funding

- Funding for the NCGP in 2010-11 is $708,733 million
- Recently announced $376 million funding in Major Grants Announcement supporting 1126 innovative projects
- Announced $255.9 million in 13 new ARC Centres of Excellence to commence in 2011
NCGP Programs & Schemes

Discovery Program
- Discovery Projects
- Discovery Indigenous Researcher Development
- Future Fellowships
- Australian Laureate Fellowships

Linkage Program
- Linkage Projects
- Linkage Infrastructure, Equipment and Facilities
- Linkage Learned Academies Special Projects
NCGP Programs & Schemes

Centres
- ARC Centres of Excellence
- ARC Special Research Centres
- Co-funded Centres of Excellence

Special Research Initiatives
- Research in Bionic Vision Science and Technology
- Stem Cell Science
- Thinking Systems
- EMBL
- AAO Fellowships
**Expert & Peer Review**

- College of Experts appointed across five Disciplines
- Selection Advisory Committees appointed for specific schemes
- Individuals of international standing
- Confidential assessment process
- Rigorous expert review and peer review processes
- Assessors make funding recommendations
Expert & Peer Review – Discipline Panels

• Biological Sciences and Biotechnology
• Engineering Mathematics and Informatics
• Humanities and Creative Arts
• Physics, Chemistry and Earth Sciences
• Social, Behavioural and Economic Sciences

Multi-disciplinary Proposals are managed across these Panels
**Expert & Peer Review**

- Over 10,000 Assessors in ARC database currently
- Currently working to improve matching of Assessors to Proposals using Fields of Research (FoR) and keywords
- Increasing number of international Assessors
Research Opportunity & Performance Evidence

• Focus on Early Career Researchers (ECRs) Proposals and success rates in previous years
• Feedback from the sector and Assessors
• Focus on differences in success rates by gender
• Fellowship eligibility, reduce overlap and increase opportunities
New NCGP schemes in 2011

Discovery – Early Career Researcher Award

- ARC Discovery Program Consultation Paper launched Nov 3 2010
- Response from individuals or institutions by Dec 1 2010
- Response Pro-forma to DiscoveryConsultation@arc.gov.au
New NCGP schemes in 2011

Research in Industry Training Award

• Part of the Clean 21 Initiative, $23.4 million investment over 6 years
• Focus on emerging green industries and reducing environmental impact of existing industries
• Up to 100 awards in 2012 and up to 100 awards in 2014
• Valuable hands-on experience for postgraduate researchers
• Awards to institutions with research activity in key areas
Why is research assessment important for Australia?
Research assessment improves research quality

Source: Thomson ISI National Science Indicators
Quality assessment exercises overseas

1986—The United Kingdom
1993—Hong Kong
1997—Germany
1998—Ireland
2002—The Netherlands
2003—New Zealand
2005—France
ERA: A world-leading initiative

• Assessment of ALL research undertaken in Australian universities over the past SIX years

• Evaluate this research by disciplines (157 + 22)

• Apply discipline matrices to ensure effective evaluation

• Capturing research element of creative output

• Cutting edge bibliometric indicators

• Use of institutional repositories
# The ERA Clusters

<table>
<thead>
<tr>
<th>Cluster 1</th>
<th>Physical, Chemical &amp; Earth Sciences</th>
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<tbody>
<tr>
<td>Cluster 2</td>
<td>Humanities and Creative Arts</td>
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<tr>
<td>Cluster 3</td>
<td>Engineering and Environmental Sciences</td>
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<tr>
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<td>Social, Behavioural and Economic Sciences</td>
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<tr>
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<td>Mathematics, Information and Communication Sciences</td>
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<td>Biological Sciences and Biotechnology</td>
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<td>Cluster 7</td>
<td>Biomedical and Clinical Research</td>
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<td>Cluster 8</td>
<td>Public and Allied Health, and Health Sciences</td>
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# The ERA 2010 Rating Scale

<table>
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<tr>
<th>Rating</th>
<th>Descriptor</th>
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<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>
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<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>
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<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>
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ERA 2010

Background Statement

Volume and Activity
Ranked Outlets
Peer Review
Citation Analysis
Esteem Measures
Research Income
Applied Measures
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
- Journal Rankings are ONE indicator not THE indicator
ERA Process Overview

<table>
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</table>

Peer Review

Please note – no weightings

Research Evaluation Committee

Final Reports
Next round of ERA is in 2012