Professor Margaret Sheil
Chief Executive Officer

Agriculture and the ARC

16 March 2009
The ARC

- Statutory Agency established 2001
- Fund direct costs to Universities and partners
- Projects, fellows and infrastructure ($<5 M)
- All disciplines except clinical medicine and dentistry (with the exception of the new Future Fellowships)
Strategic objectives

• To support excellence in research
• To build Australia’s research capacity
• To provide informed high quality policy advice to government
• To enhance research outcomes through effective evaluation
• To raise the profile of Australia’s research effort and be an effective advocate for its benefits
An Environmentally Sustainable Australia

- National Research Priority
- Significant land degradation issues, such as salinity, need to be arrested to underpin our agricultural production systems;
- Our agricultural and mining industries are being transformed through the adoption of new technologies, and the development of new types of foods.
- Priority goals for research fall in the seven areas of:
  - water utilisation
  - transforming resource-based industries
  - overcoming land degradation
  - developing cleaner, more efficient fuels and energy sources
  - managing biodiversity
  - deep earth resources, and
  - responding to climate change and variability
ARC funding
National Competitive Grants Program (NCGP)

• Comprises two main elements
  – Discovery and Linkage

• Recommendations are made to the Minister by the CEO following independent and extensive competitive peer review by Australian and international experts

• Biological Sciences and Biotechnology, which includes agriculture disciplines, is one of the inter-disciplinary groupings in which the NCGP is based
### Agriculture Projects funded under the NCGP

<table>
<thead>
<tr>
<th>Description</th>
<th>2002</th>
<th>2003</th>
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Discovery Projects

• Provides funding for research projects that can be undertaken by individual researchers or research teams
  • Australian Postdoctoral Fellowships
  • Australian Research Fellowships and Queen Elizabeth II Fellowships
  • Australian Professorial Fellowships
## Discovery Projects 2009

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Proposals received</th>
<th>Proposals approved</th>
<th>Success rate</th>
<th>Requested funds over project life (all proposals) $ million</th>
<th>Indicative funds over project life (approved) $ million</th>
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## Discovery Projects 2008

<table>
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<th>Discipline</th>
<th>Proposals received</th>
<th>Proposals approved</th>
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<th>Requested funds over project life (all proposals) $ million</th>
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<td><strong>All</strong></td>
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<td><strong>878</strong></td>
<td><strong>21.4</strong></td>
<td><strong>532</strong></td>
<td><strong>300.8</strong></td>
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Linkage Projects

• Supports collaborative research and development projects between higher education organisations and other organisations

• Collaborating organisation must make a significant financial contribution to the project

  • Australian Postgraduate Awards
  • Australian Postdoctoral Fellowships
  • Linkage Industry Fellowships

• AIATSIS now eligible for funding

• Applications are processed twice a year
Linkage Projects partners

- Private sector
- Private non-profit organisations
- Government organisations with funds not committed to internal research or any other purpose of research, evaluation and/or consultancy
- The Agricultural Produce Commission is a recent linkage partner on three projects
Importance of Co-Funding

• Co-funding is a ‘revealed preference’
  – confirmation of research need
  – pre-selection process

• Co-funding is quantifiable
  – $ ARC + $ co-funder = $ project
  – Happy co-funders are influential spokespersons
  – to whom others really listen
Assessment Process(es)

Specialty Readers
• match with sub-discipline or field
• read a small number per round

General Readers
• strong experience of discipline or field
• read between 10 and 20 per round

College of Experts
• leaders of discipline or field; expert researchers
• read many proposals per round
Australian Centre for Plant Functional Genomics

- Hosted by the University of Adelaide.
- Established in December 2002
- Jointly funded by the ARC and the Grains Research and Development Corporation (GRDC).
- ARC and GRDC initially provided $10 m over 5 years
- An additional $21 million over 5 years from 2008 is being provided by the ARC and GRDC
- The Centre addresses community concerns about the genetic modification of plants, by contributing to the public debate through an active community outreach program.
Excellence in Research for Australia (ERA)

Defining our strengths,
identifying opportunities…
ERA

- Announced on 26 February 2008
- Will assess research quality within Australia’s higher education institutions using a combination of indicators and expert review by committees comprising experienced, internationally-recognised experts
- Aims to:
  - Have the confidence of the research community
  - Identify excellence across all areas of research
  - Minimise the burden on those making submissions and those doing the evaluations
International research excellence exercises

United Kingdom (UK)
- Research Assessment Exercise (RAE)
- Research Excellence Framework (REF)

New Zealand
- Performance-Based Research Fund (PBRF)
Consultation and interest

National

103 submissions to the Consultation Paper (36 from HEPs)
  • Australian Institute of Agricultural Science and Technology submission

114 submissions to the journal rankings

ERA helpdesk has fielded over 330 queries

International

– Consulted with UK, The Netherlands, US and NZ
– international experts on committees and groups, and in workshops

Media

– > 70 media clips since March 08
– Received international media coverage - with PBRF and RAE/REF
Discipline clusters

1. Physical, Chemical and Earth Sciences (PCE)
2. Humanities and Creative Arts (HCA)
3. Engineering and Environmental Sciences (EE)
4. Social, Behavioural and Economic Sciences (SBE)
5. Mathematical, Information and Computing Sciences (MIC)
6. Biological and Biotechnological Sciences (BB)
7. Biomedical and Clinical Health Sciences (BCH)
8. Public and Allied Health Sciences (PAH)
DIVISION 01 MATHEMATICAL SCIENCES

This division covers mathematics, statistics, and mathematical aspects of the physical sciences.

This division contains six groups:

0101  Pure Mathematics
0102  Applied Mathematics
0103  Numerical and Computational Mathematics
0104  Statistics
0105  Mathematical Physics
0199  Other Mathematical Sciences
Cluster 6 (BB)

07 Agricultural and Veterinary Sciences

0701 Agriculture, Land and Farm Management
0702 Animal Production
0703 Crop and Pasture Production
0704 Fisheries Sciences
0705 Forestry Sciences
0706 Horticultural Production
0707 Veterinary Sciences
0799 Other Agricultural and Veterinary Sciences

10 Technology

1001 Agricultural Biotechnology
Indicators

ERA will use discipline-specific indicators to evaluate research where appropriate.

The development of indicators was assisted by expert advice provided by the Indicators Development Group and sub-groups, and consultation with the research and higher education sector.

Indicator methodologies have been developed in accordance with international best practice.

In December 2008, the Minister and I released two key indicator documents: the *ERA Indicator Principles* and *ERA Indicator Descriptors*. 
Interdisciplinary research

ERA is a discipline-based exercise, but seeks to recognise this research. Institutions can identify research by institutional unit and/or research theme so they can compile interdisciplinary profiles. Full ERA evaluations in 2010 will help.

There are still issues of how we aggregate this information.

Applied research

Will be included in ERA.

Has the meaning used in the ANZSRC.

Is considered on the basis of research commercialisation income and other applied measures.
What next

ERA trial

– Will evaluate the PCE and HCA clusters
  • Submission Guidelines and Technical Specifications released last week
– Minister announced timeframe on 23 February
  • PCE submissions to commence in June
  • HCA submissions to commence in August
– Outcomes will inform the full ERA process
– Esteem indicators will not be included

Full ERA in 2010
ERA: Lessons learned

Time needed to adjust thinking to the new approach
All spent a long time preparing for the RQF
RQF taught us some things
Senior administrators and research offices understand the new approach, researchers are taking some time to get up to speed
Workshops held with researchers have shown that once they understand, there is strong level of support for the approach
Competing agendas between researchers, research disciplines and university administrators
Esteem indicators are a good example of the tensions the ARC has to deal with