Topics for Today

• Centre Stuff & Research Impact
• Career development – tips and tricks
• The Pie
• Overview of the ARC and its funding schemes
• The grant lifecycle
• Insights into the grants process
• Early to mid career Awards/Fellowships
ARC - 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
Milestones vs KPIs

Events or milestones fail to give us good performance feedback because they only tell us whether or not we implemented the initiatives we chose to improve performance.

They don’t tell us if those initiatives worked and actually did improve performance.

Stacey Barr
Performance Measure Specialist
Common Bugbears

• Not understanding that outreach is very important
• Not understanding strategic planning and the role of Boards/Committees and partners within KPIs
• Not enough emphasis on mentoring and professional development of students, staff and end users
• Not understanding that capacity building means people (not the profile of the centre’s research internationally)
• KPIs need more emphasis on national and international benchmarking
• Navel gazing
- **RESOURCES**
  - **INPUT**
    - e.g. CRC grant, participant cash, participant in-kind contribution, staff years, etc.
  - **ACTIVITY**
    - e.g. By Research Program:
      - research projects
      - education
      - SME engagement
      - international engagement
      - communications activities
      - etc.
  - **OUTPUTS**
    - e.g. By Research Program:
      - publication
      - training package
      - post-grad student completions
      - prototype
      - etc.
  - **USAGE**
    - e.g. By Research Program:
      - training package accessed by users
      - completed students employed in industry
      - process change implemented by companies
      - etc.
  - **IMPACT**
    - e.g. By Research Program:
      - output gain
      - productivity improvement
      - water saving
      - health improvement
      - higher quality workforce
      - etc.
  - **BENEFIT**
    - e.g. By Research Program:
      - estimated value of impact multiplied by probability of impacts being achieved, less cost of delivery and usage
CSIRO’S IMPACT FRAMEWORK

- **Inputs**
- **Activities**
- **Outputs**
- **Outcomes**
- **Impact**

**Engagement**

- Planned work: What we control
- Intended results: What we influence directly or indirectly

**Feedback Loops**

**Impact Activity**

- Planning
- Monitoring
- Evaluation

http://www.csiro.au/impact
“For impact to occur, there needs to be some form of engagement with a user community.”

Achieving impact in research. Ed Pam Denicolo 2014
Standard Skills you acquire when studying

1. The formation of an idea to solve a problem - Research and technical skills. Critical thinking.
2. Acquiring and contributing to disciplinary knowledge – specialised disciplinary practices and cultural paradigms of thinking. Research Tools and methodologies.
3. Vital workplace skills including:
   - Synthesising and communicating your research results.
   - Project planning and management.
   - Time management and organisational skills
   - Refined investigation skills and analysing data. IT skills too.
   - Seeking and accepting feedback
   - Participating in a team (joint projects)
   - Beginning to publishing your work
   - Patience.... Passion....
4. But Wait! Capitalising on skills from other part time or full time work – retail, hospitality, office, volunteering, sporting clubs
More “soft” and “business” skills you may need

- Grant proposal writing
- Communicating your work publicly
- Project/program management – problem solving
- People – performance management and teamwork
- Financial Resourcing – knowing how to develop and monitor a budget
- Accountability/governance and its safeguards
- Understanding Intellectual Property
- Research ethics and Code of Conduct
- The workplace – your responsibilities and your rights
- Networking and being opportunistic
- Delivering results and outcomes
- Interpersonal skills and resilience.....
And that is just step one – feeling ambitious?
The next steps of your career

Management
- Understanding the project outcomes
- Planning, budgeting and staffing
- Organising, controlling and problem solving
- Producing a degree of predictability and order
- Responsibility even if you weren’t the person that made the mistake

Leadership
- Vision – seeing and delivering the outcomes of the project
- Establishing directions
- Aligning, motivating and inspiring people
- Produces change
- Full responsibility for whole project/program
Commonwealth Investment in R&D 2014-15

- **Industry R&D Tax Measures**: 26.44%
- **NHMRC**: 10.12%
- **ARC**: 9.53%
- **CSIRO**: 8.11%
- **DSTO**: 4.44%
- **Other R&D**: 1.95%
- **Energy and the Environment**: 1.37%
- **CRCs**: 1.63%
- **Higher Education R&D**: 0.47%
- **Block Funding**: 21.19%
- **Rural**: 3.30%
- **Other Health**: 0.63%
- **Business Innovation**: 3.30%
- **Business R&D**: 0.02%
- **Australian Government R&D**: 7.50%
- **Other R&D**: 1.95%

Source: Budget 2014-2015 Industry and Innovation tables
ARC NCGP Programs & Schemes

Discovery Program
- Discovery Projects
- Discovery Indigenous Researcher Development
- Discovery Early Career Researcher Award (DECRA)
- Future Fellowships
- Australian Laureate Fellowships

Linkage Program
- Linkage Projects
- Linkage Infrastructure, Equipment and Facilities
- Linkage Learned Academies Special Projects
Types of ARC Centres

- ARC Centres of Excellence
- Industrial Transformation Research Program
- Special Research Initiatives
- Co-funded Centres
NCGP Grants Lifecycle

- Development of Funding Rules
- Eligibility Exemption Request
- Proposal Submission
- Request Not to Assess
- Assessment Process
- Rejoinder
- Selection Meeting
- Approval of Outcomes
- Funding Agreements and Appeals
- Post Award

Development of RMS
Recruitment of College of Experts or Selection Advisory Committee
Eligibility
Announcement
End of Year and Progress Reports
Final Report
NCGP Lifecycle

- Approved by Minister
- Published on the ARC website
- Sector advised of availability

Funding Rules

Proposal Assessment
- Proposals are considered against eligibility criteria and compliance with the Funding Rules.
- Proposals are assessed by independent assessors.
- Applicants may be given the opportunity for a rejoinder to assessors' written comments.
- Proposals are assessed by the ARC College of Experts or a Selection Advisory Committee.

Selection Meeting
- The ARC College of Experts or a Selection Advisory Committee consider all proposals, rank each proposal relative to other proposals in the same discipline cluster, and recommend budgets for the highly ranked proposals.

Approval of Funding
- ARC CEO provides recommendations to the Minister in relation to which Proposals should be approved for funding, which Proposals should not be approved for funding, and the level of funding and duration of Projects.
- Minister considers recommendations and approves and announces funding outcomes.

Postaward and Reporting
NCGP Lifecycle

Funding Rules
- Approved by Minister
- Published on the ARC website
- Sector advised of availability

Proposals
- Applications submitted via RMS by Eligible Organisations by the relevant scheme closing date
- Instructions to applicants, sample application form and FAQs published on ARC website
1. Assign external assessors

• This afternoon!
NCGP Lifecycle

**Funding Rules**
- Approved by Minister
- Published on the ARC website
- Sector advised of availability

**Proposals**
- Applications submitted via RMS by Eligible Organisations by the relevant scheme closing date
- Instructions to applicants, sample application form and FAQs published on ARC website

**Assessment**
- Proposals are considered against eligibility criteria and compliance with the Funding Rules.
- Proposals are assessed by independent assessors
- Applicants may be given the opportunity for a rejoinder to assessors’ written comments
- Proposals are assessed by the ARC College of Experts or a Selection Advisory Committee

**Selection Meeting**
- The ARC College of Experts or a Selection Advisory Committee consider all proposals, rank each proposal relative to other proposals in the same discipline cluster and recommend budgets for the highly ranked proposals

**Approval of Funding**
- ARC CEO provides recommendations to the Minister in relation to which Proposals should be approved for funding, which Proposals should not be approved for funding, and the level of funding and duration of Projects.
- Minister considers recommendations and approves and announces funding outcomes

**Postaward and Reporting**
NCGP Lifecycle

Funding Rules
- Approved by Minister
- Published on the ARC website
- Sector advised of availability

Proposals
- Applications submitted via RMS by Eligible Organisations by the relevant scheme closing date
- Instructions to applicants, sample application form and FAQs published on ARC website

Assessment
- Proposals are considered against eligibility criteria and compliance with the Funding Rules.
- Proposals are assessed by independent assessors
- Applicants may be given the opportunity for a rejoinder to assessors’ written comments
- Proposals are assessed by the ARC College of Experts or a Selection Advisory Committee

Selection meeting
- The ARC College of Experts or a Selection Advisory Committee consider all proposals, rank each proposal relative to other proposals in the same discipline cluster and recommend budgets for the highly ranked proposals

Approval of funding
- ARC CEO provides recommendations to the Minister in relation to which proposals should be approved for funding, which proposals should not be approved for funding, and the level of funding and duration of projects.
- Minister considers recommendations and approves and announces funding outcomes

Postaward and reporting
NCGP Lifecycle

**Funding Rules**
- Approved by Minister
- Published on the ARC website
- Sector advised of availability

**Proposals**
- Applications submitted via RMS by Eligible Organisations by the relevant scheme closing date
- Instructions to applicants, sample application form and FAQs published on ARC website

**Assessment**
- Proposals are considered against eligibility criteria and compliance with the Funding Rules.
- Proposals are assessed by independent assessors
- Applicants may be given the opportunity for a rejoinder to assessors’ written comments
- Proposals are assessed by the ARC College of Experts or a Selection Advisory Committee

**Selection meeting**
- The ARC College of Experts or a Selection Advisory Committee consider all proposals, rank each proposal relative to other proposals in the same discipline cluster and recommend budgets for the highly ranked proposals

**Approval of funding**
- ARC CEO provides recommendations to the Minister in relation to which Proposals should be approved for funding, which Proposals should not be approved for funding, and the level of funding and duration of Projects.
- Minister considers recommendations and approves and announces funding outcomes
- Postaward and reporting
The Grants Peer Review Process

All Disciplines

- Biological Sciences and Biotechnology (BSB)
- Engineering, Mathematics and Informatics (EMI)
- Humanities and Creative Arts (HCA)
- Physics, Chemistry and Earth Sciences (PCE)
- Social, Behavioural and Economic Sciences (SBE)
Interdisciplinary research
Overall

• All grants that are successful should provide exciting new outcomes and be an excellent investment

• Decisions should align with Scheme Objectives

• But not all excellent proposals can get funding; most applicants will be disappointed
Insights into grants process – the ARC perspective

- Where to apply for funding, and choosing a scheme.
- Pay attention to eligibility and ARC cross scheme limits
- The scheme objectives and the selection criteria - address every one of them
- Choosing Field of Research Codes – assisting the ARC choose the right assessors
- Track Record – career interruption – the ROPE provision
- The scale of assessment
  - The external assessor – 1-2 proposals
  - The ARC panel member – 10-50
  - The ARC Panel – 150-400
- The rejoinder - how to address it effectively
Insights into grants process – your perspective

- Understanding the research field and international context. Developing your ideas to solve a research problem.
- Importance of networking with leaders in the field. Consider the research environment when applying too. A centre is a great place.
- Applying by yourself. Applying as a team member....
- Career interruptions – making a case for ROPE
- Seek mentors on writing good grant applications
- Your first grant application
  - Writing for your peers – write so that someone broadly in your field will understand your project
  - Writing for the public – write a plain English statement
- Don’t over-inflate authorship claims but don’t undersell yourself either
- Key elements of a good grant proposal
• Focus
• Clear research problem
• Mature Plan
• Clear writing/ease of reading
• Innovation
• Selection criteria
• Keep up to date with the rules
• ROPE*/Track record

• Assessment & peer review process
• ARC College of Experts
• www.arc.gov.au
• “NCGP”

• Convince assessor of your capability
• Distinguish from previous/similar work
• FoR codes (ABS); Key words
• Choose carefully/assessor
• Not “99”
• Get good advice

*research opportunity and performance evidence
LOW RANKED PROPOSALS:

- Use too much technical jargon
- Make grandiose and implausible claims about outcomes
- Don't support claims of excellence or progress with evidence
- Relate to research areas without momentum
- Are weakly linked into national and international research networks
LOW RANKED PROPOSALS:

• Emphasize the collection of data rather than the solution of controversies
• Set a negative or depressive tone about the state of the subject in Australia
• Contain a high rate of spelling and grammatical errors
• Are badly structured and difficult to follow
Responding to an assessment/rejoinder

- Read the assessments then wait at least a day before starting the rejoinder
- Approach it constructively
- The rejoinder is to help College of Experts to seek applicant’s views on constructive criticisms made by peers
- Don’t rubbish the assessor – you’re wasting valuable space to address important concerns
## ARC Fellowships

<table>
<thead>
<tr>
<th></th>
<th>DECRA</th>
<th>FT</th>
<th>FL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Career Stage</strong></td>
<td>Early career</td>
<td>Mid career</td>
<td>World-class</td>
</tr>
<tr>
<td><strong>PhD award</strong></td>
<td>0-5 (+3)</td>
<td>5-15 (+7)</td>
<td>NA</td>
</tr>
<tr>
<td><strong>Duration</strong></td>
<td>3 years</td>
<td>4 years</td>
<td>5 years</td>
</tr>
<tr>
<td><strong>Salary</strong></td>
<td>Contribution of $94,512/year</td>
<td>Three salary levels (equivalent to C-E)</td>
<td>Salary supplement of $150,554</td>
</tr>
<tr>
<td><strong>Project costs</strong></td>
<td>Up to $40,000/year</td>
<td>Up to $50,000/year</td>
<td>Up to $300,000/year Up to two post-docs and two PhDs</td>
</tr>
</tbody>
</table>
Fellowship Proposal Numbers and Success Rates for 2013-14

<table>
<thead>
<tr>
<th>Scheme Round</th>
<th>Proposals Considered</th>
<th>Proposals Approved</th>
<th>Success Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>DECRA – 2014</td>
<td>1468</td>
<td>200</td>
<td>13.6%</td>
</tr>
<tr>
<td>Australian Laureate Fellowships – 2013</td>
<td>112</td>
<td>17</td>
<td>15.2%</td>
</tr>
<tr>
<td>Future Fellowships – 2013</td>
<td>1234</td>
<td>201</td>
<td>16.3%</td>
</tr>
</tbody>
</table>

http://www.arc.gov.au/nccgp/default.htm
DECRA rankings 2013

DECRA 2013
Network = Go8

discipline

BSB
EMI
HCA
PCE
SBE

Normalised Rank

Funded
1
0

Normalised Rank
First-time awardees in DP (2008 to 2014)
Size of scheme and success rates

DECRA 2012-2014: Success Rates

Number of Proposals

- Unsuccessful
- Successful
- Success rate

Success rates:
- 2008: 2.80%
- 2009: 15.60%
- 2010: 13.62%
- 2011: 0.0%
- 2012: 1268
- 2013: 1081
- 2014: 200

Number of Proposals:
- 2008: 0
- 2009: 1500
- 2010: 2000
- 2011: 277
- 2012: 1882
- 2013: 200
- 2014: 200

Years:
- 2008
- 2009
- 2010
- 2011
- 2012
- 2013
- 2014
Size of scheme and success rates (5)

*Future Fellowships 2009-2013: Success Rates*

- **2009:**
  - Number of Proposals: 775
  - Unsuccessful: 200 (20.5%)
  - Successful: 575 (79.5%)
  - Success Rate: 20.5%

- **2010:**
  - Number of Proposals: 559
  - Unsuccessful: 200 (35.4%)
  - Successful: 359 (64.6%)
  - Success Rate: 26.4%

- **2011:**
  - Number of Proposals: 458
  - Unsuccessful: 203 (44.3%)
  - Successful: 255 (55.7%)
  - Success Rate: 30.7%

- **2012:**
  - Number of Proposals: 394
  - Unsuccessful: 209 (53.2%)
  - Successful: 185 (46.8%)
  - Success Rate: 34.7%

- **2013:**
  - Number of Proposals: 1033
  - Unsuccessful: 201 (19.4%)
  - Successful: 832 (80.6%)
  - Success Rate: 16.29%
Fellowships objectives

DECRA Objectives

• support and advance promising early career researchers;
• promote enhanced opportunities for diverse career pathways;
• focus research effort in the Strategic Research Priority areas to improve research capacity and policy outcomes; and
• enable research and research training in high quality and supportive environments.

Futures Objectives

• attract and retain outstanding mid-career researchers;
• build collaboration across industry and/or research organisations and/or disciplines;
• support research in national priorities that will result in economic, environmental, social, health and/or cultural benefits for Australia; and
• strengthen Australia’s research capacity by supporting innovative, internationally competitive research.
Fellowships criteria

**DECRA Selection Criteria**
- Project Quality and Innovation  40%
- DECRA Candidate  35%
- Research Environment  15%
- Feasibility and Benefit  10%

**Futures Selection Criteria**
- Future Fellowship Candidate  40%
- Project Quality  35%
- Strategic Alignment  15%
- Collaboration / Outreach  10%
## Time since PhD – DE14

<table>
<thead>
<tr>
<th>Years since award of PhD</th>
<th>No. of considered proposals</th>
<th>% of considered proposals</th>
<th>No. of approved proposals</th>
<th>% of approved proposals</th>
<th>% success</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-1</td>
<td>169</td>
<td>11.5%</td>
<td>19</td>
<td>9.5%</td>
<td>11.2%</td>
</tr>
<tr>
<td>1-2</td>
<td>190</td>
<td>12.9%</td>
<td>17</td>
<td>8.5%</td>
<td>8.9%</td>
</tr>
<tr>
<td>2-3</td>
<td>236</td>
<td>16.1%</td>
<td>35</td>
<td>17.5%</td>
<td>14.8%</td>
</tr>
<tr>
<td>3-4</td>
<td>336</td>
<td>22.9%</td>
<td>51</td>
<td>25.5%</td>
<td>15.2%</td>
</tr>
<tr>
<td>4-5</td>
<td>394</td>
<td>26.8%</td>
<td>57</td>
<td>28.5%</td>
<td>14.5%</td>
</tr>
<tr>
<td>5-6</td>
<td>92</td>
<td>6.3%</td>
<td>15</td>
<td>7.5%</td>
<td>16.3%</td>
</tr>
<tr>
<td>6-7</td>
<td>29</td>
<td>2.0%</td>
<td>2</td>
<td>1.0%</td>
<td>6.9%</td>
</tr>
<tr>
<td>7-8</td>
<td>22</td>
<td>1.5%</td>
<td>4</td>
<td>2.0%</td>
<td>18.2%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1468</strong></td>
<td></td>
<td><strong>200</strong></td>
<td></td>
<td><strong>13.6%</strong></td>
</tr>
</tbody>
</table>

Time since PhD – DE14

- Success rate is greater for people with 3-5 years experience.
- We have also looked at career interruption data:
  - Overall success rate for people with career interruptions is no different to those without career interruptions.
  - Trend in success rate follows same pattern as overall (i.e. a greater success rate with equivalent of 3-5 years experience).
## Gender of candidates – DE14

<table>
<thead>
<tr>
<th>Panel</th>
<th>Number of female candidates</th>
<th>Number of approved female candidates</th>
<th>Female success rate</th>
<th>Number of male candidates</th>
<th>Number of approved male candidates</th>
<th>Male success rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSB</td>
<td>157</td>
<td>21</td>
<td>13.4%</td>
<td>207</td>
<td>29</td>
<td>14.0%</td>
</tr>
<tr>
<td>EMI</td>
<td>63</td>
<td>8</td>
<td>12.7%</td>
<td>338</td>
<td>47</td>
<td>13.9%</td>
</tr>
<tr>
<td>HCA</td>
<td>124</td>
<td>18</td>
<td>14.5%</td>
<td>93</td>
<td>12</td>
<td>12.9%</td>
</tr>
<tr>
<td>PCE</td>
<td>70</td>
<td>10</td>
<td>14.3%</td>
<td>166</td>
<td>22</td>
<td>13.3%</td>
</tr>
<tr>
<td>SBE</td>
<td>139</td>
<td>19</td>
<td>13.7%</td>
<td>105</td>
<td>14</td>
<td>13.3%</td>
</tr>
<tr>
<td>Total</td>
<td>553</td>
<td>76</td>
<td>13.7%</td>
<td>909</td>
<td>124</td>
<td>13.6%</td>
</tr>
</tbody>
</table>

More information

• Your university Research Office (RO) is the essential first stop for information

• ARC staff are available to assist RO via email and phone

• Huge amount of valuable information on the ARC website
  – Funding rules and Instructions to Applicants
  – FAQs
  – Additional pages on various policies
  – Detailed outcomes for all schemes for recent years, arranged by institution and by discipline (FoR code)