ARC funding and HCA
Flinders University
26 September 2014

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Australian Research Council
Questions and themes

• HCA grants in national context
• Discovery and Linkage, Centres of Excellence
• Understanding the assessment process – and adapting
• HCA subdisciplines
  – Case studies: cultural studies and architecture, design and urban
  – Interdisciplinary applications
  – Teams: senior/junior? Inter-institutional? Large/small?
• Developing applications
• Application and success patterns
  – ROPE
  – Career age, gender, seniority, sector
• Linkage and emerging opportunities in ARC HCA
• Centres of excellence
More Information

- [http://www.arc.gov.au/media/ARC_Presentations.htm](http://www.arc.gov.au/media/ARC_Presentations.htm)
ARC and the funding landscape
Commonwealth Investment in R&D 2013-14

- ARC: 10.2%
- NHMRC: 9.9%
- Block Funding to Higher Ed: 21.9%
- Other Higher Ed R&D Support: 0.9%
- CRCs: 1.7%
- Rural: 3.9%
- Energy and the Environment: 2.4%
- Multisector Science Support: 2.4%
- Other Innovation Support: 5.0%
- Other Industry R&D Support: 0.1%
- Industry R&D Tax Measures: 19.4%
- Other Govt R&D: 7.4%
- DSTO: 4.9%
- CSIRO: 8.8%

Source: Budget 2013-2014 Industry and Innovation tables
National Competitive Grants Program

**Discovery Program**
- Laureate Fellowships
- DECRA
- Discovery Indigenous
- Future Fellowships
- Discovery Projects

**Linkage Program**
- Centres of Excellence
- Co-Funded & SRI
- ITRP
- Linkage Projects
- LIEF

**Discovery Program Funding 2013-14** - $551.4 million
**Linkage Program Funding 2013-14** - $332.4 million
Success Rate: Comparison of Schemes

Success Rate in commencement year 2013

- Linkage - Infrastructure Equipment
- Linkage - Projects
- Discovery Indigenous
- Industrial Transformation Training
- Discovery - Projects
- ARC Future Fellowships
- Discovery Early Career Researcher
- Australian Laureate Fellowships

39%
2014–15 Federal Budget

This is us!

(Treasury omitted)
## Budget 2014–15: ARC

### New measures

<table>
<thead>
<tr>
<th>Program</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Future Fellowships</td>
<td>ongoing</td>
</tr>
<tr>
<td>Support for Dementia</td>
<td>$26 million</td>
</tr>
<tr>
<td>Tropical Health and Medicine</td>
<td>$42 million</td>
</tr>
<tr>
<td>ARC Antarctic Gateway</td>
<td>$24 million</td>
</tr>
<tr>
<td><strong>MYEFO</strong></td>
<td></td>
</tr>
<tr>
<td>Juvenile Diabetes</td>
<td>$35 million</td>
</tr>
</tbody>
</table>
Other Measures

• 3.25% Efficiency Dividend

• Revised Indexation – now CPI

• Departmental savings measures
ARC NCGP funding by University ($m) 2007–2013

RUN
IRU
ATN
Go8
Unaligned
Mapping Engagement:

Linkage Projects vs. Discovery Projects

WA
QLD
NSW
VIC
NT
SA
ACT
TAS

Linkage $112m
Discovery $50m
Strength in scheme avg. p.a. $LP + $DP $12m
ARC Proposals Received: 2-Digit FOR (%) 2006–2013

- Mathematical Sciences
- Physical Sciences
- Chemical Sciences
- Earth Sciences
- Environmental Sciences
- Biological Sciences
- Information and Computing Sciences
- Agricultural and Veterinary Sciences
- Engineering
- Technology
- Medical and Health Sciences
- Built Environment and Design
- Education
- Economics
- Commerce, Management, Tourism and Services
- Studies in Human Society
- Psychology and Cognitive Sciences
- Law and Legal Studies
- Studies in Creative Arts and Writing
- Language, Communication and Culture
- History and Archaeology
- Philosophy and Religious Studies
Average Awarded Grant Size—DP11 to DP13—by 2 digit FoR
showing awarded amount as a proportion of requested amount
Assessment process
NCGP Proposal 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
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)
The Grants Peer Review Process

- Information flow

Diagram:
- Applicant
- External Assessors
- Minister
- College of Experts
- ARC

Flow:
- Application
- Funding result
- 1st ranking
- Final ranking
Final Proposal Score Calculation

• “Grouped Average” of all submitted assessments for the proposal
• This calculation results in a “Proposal Score”
• For the meeting proposal ranks are calculated for each panel
• Any proposals (within same panel) with equal Proposal Scores will have equal ranks.

Average of General

Average of Detailed

Average

RANK
The Grants Peer Review Process

- External Reviewer
- Internal Reviewer
- Rank
  - Committee Review
  - Recommendation to CEO
  - Minister Approval

$\text{GRANTS}$
Discovery Projects Grants rankings 2013

Additional feedback

Each symbol represents up to 2 observations.
Patterns of application and success by discipline/FOR
Comparison of success rate in HCA/SBE between major schemes (totals, 2002–14)
Total ARC funding by major scheme and selected HCA/SBE disciplines (2002–14)
Number of proposals received and funded by 2-digit FoR code

[past 4 years Discovery Projects and 5 years Linkage Projects]
Case study:
2002 Cultural studies
Funding ($) for projects with primary 4-digit FoR in Cultural Studies by scheme (2011 to 2014)

No projects funded in LIEF scheme
Cultural Studies (2002) by 6-digit level FoR code (all schemes, regardless of primary classification code) (2010/11 to 2014)

Size of bubble indicates the total percentage of a 6-digit level code in all projects funded
Percentage totals of 6-digit level code (2010/11–14) (DP and LP)

**DP**

- 2002 04: Cultural Theory
- 2002 03: Consumption and Everyday Life
- 2002 99: Cultural Studies not elsewhere classified
- 2002 12: Screen and Media Culture
- 2002 06: Globalisation and Culture
- 2002 02: Asian Cultural Studies
- 2002 05: Culture, Gender, Sexuality
- 2002 09: Multicultural, Intercultural and Cross-cultural Studies
- 2002 01: Aboriginal and Torres Strait Islander Cultural...
- 2002 11: Postcolonial Studies
- 2002 08: Migrant Cultural Studies

**LP**

- 2002 04: Cultural Theory
- 2002 03: Consumption and Everyday Life
- 2002 99: Cultural Studies not elsewhere classified
- 2002 12: Screen and Media Culture
- 2002 06: Globalisation and Culture
- 2002 02: Asian Cultural Studies
- 2002 05: Culture, Gender, Sexuality
- 2002 09: Multicultural, Intercultural and Cross-cultural Studies
- 2002 01: Aboriginal and Torres Strait Islander Cultural...
- 2002 11: Postcolonial Studies
- 2002 08: Migrant Cultural Studies
FOR 12 Built Environment and Design
FoR 12 Built Environment & Design

Division 12 covers Built Environment and Design. It includes:
• architecture;
• building;
• design from both engineering and aesthetic perspectives; and
• urban and regional planning.

Division 12 has six groups:
• 1201 Architecture
• 1202 Building
• 1203 Design Practice and Management
• 1204 Engineering Design
• 1205 Urban and Regional Planning
• 1299 Other Built Environment and Design
Number of BED proposals received and funded (on the basis of Primary 4-digit FoR codes)

Submit years 2001 to 2013; all schemes
Number of BED proposals received and funded (on the basis of any relevant 6-digit FoR code)

Submit years 2001 to 2013; all schemes
BED by 6-digit level FoR code (all schemes, regardless of primary classification code) (years 2010 to 2014)

Size of bubble indicates the total percentage of a 6-digit level code in all projects funded
### BED by 6-digit level code, total percentage (DP and LP, past 4-year projects)

#### Discovery Projects

<table>
<thead>
<tr>
<th>Code</th>
<th>Project</th>
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<tbody>
<tr>
<td>12 12 12 01 01 01</td>
<td>Architectural History and Theory</td>
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<tr>
<td>12 12 12 01 01 01</td>
<td>Architectural Design</td>
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<tr>
<td>12 12 12 05 04 02</td>
<td>Architectural Science and Technology...</td>
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<tr>
<td>12 12 12 05 04 02</td>
<td>Urban Analysis and Development</td>
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<td>12 12 12 05 04 02</td>
<td>Transport Planning</td>
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<tr>
<td>12 12 12 05 04 02</td>
<td>Housing Markets, Development,...</td>
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<tr>
<td>12 12 12 05 04 02</td>
<td>History and Theory of the Built...</td>
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<tr>
<td>12 12 12 05 04 02</td>
<td>Land Use and Environmental Planning</td>
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<td>12 12 12 05 04 02</td>
<td>Digital and Interaction Design</td>
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<td>12 12 12 05 04 02</td>
<td>Architectural Heritage and Conservation</td>
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<td>12 12 12 05 04 02</td>
<td>Built Environment and Design not...</td>
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<td>12 12 12 05 04 02</td>
<td>Design Innovation</td>
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<td>12 12 12 05 04 02</td>
<td>Community Planning</td>
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<td>12 12 12 05 04 02</td>
<td>Landscape Architecture</td>
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<tr>
<td>12 12 12 05 04 02</td>
<td>Building Science and Techniques</td>
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<tr>
<td>12 12 12 05 04 02</td>
<td>Design Management and Studio and...</td>
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<tr>
<td>12 12 12 05 04 02</td>
<td>Urban and Regional Planning not...</td>
</tr>
</tbody>
</table>

#### Linkage Projects

<table>
<thead>
<tr>
<th>Code</th>
<th>Project</th>
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<tbody>
<tr>
<td>12 12 12 01 01 01</td>
<td>Architectural Design</td>
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<tr>
<td>12 12 12 01 01 01</td>
<td>Building Construction Management...</td>
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<td>12 12 12 01 01 01</td>
<td>Transport Planning</td>
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<td>History and Theory of the Built...</td>
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<td>12 12 12 01 01 01</td>
<td>Regional Analysis and Development</td>
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<td>12 12 12 01 01 01</td>
<td>Engineering Design Empirical Studies</td>
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Cross-disciplinary collaboration
<table>
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<tr>
<th>Percentage totals of non-primary FoR codes in projects (2010/11 to 2014) all schemes</th>
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</table>

*Notes:*
- **Discovery** and **Linkage** indicate the percentage of non-primary FoR codes in projects.
- The table shows the distribution of these codes across various disciplines and schemes.
FOR Network mapping..
[Fruchterman reingold]

HASS disciplines highlighted

01 MATHEMATICAL SCIENCES
02 PHYSICAL SCIENCES
03 CHEMICAL SCIENCES
04 EARTH SCIENCES
05 ENVIRONMENTAL SCIENCES
06 BIOLOGICAL SCIENCES
07 AGRICULTURAL AND VETERINARY SCIENCES
08 INFORMATION AND COMPUTING SCIENCES
09 ENGINEERING
10 TECHNOLOGY
11 MEDICAL AND HEALTH SCIENCES
12 BUILT ENVIRONMENT AND DESIGN
13 EDUCATION
14 ECONOMICS
15 COMMERCE, MANAGEMENT, TOURISM
16 STUDIES IN HUMAN SOCIETY
17 PSYCHOLOGY AND COGNITIVE SCIENCE
18 LAW AND LEGAL STUDIES
19 STUDIES IN CREATIVE ARTS AND WRITING
20 LANGUAGE, COMMUNICATION AND CULTURE
21 HISTORY AND ARCHAEOLOGY
22 PHILOSOPHY AND RELIGIOUS STUDIES

Source data:
http://www.arc.gov.au/general/searchable_data.htm
FOR Network mapping..

[Fruchterman reingold]

HASS - ZOOM
ARC Linkage projects
The *Linkage Projects* scheme objectives

- initiation and/or development of long-term strategic research alliances between higher education organisations and other organisations, including industry and end-users, in order to apply advanced knowledge to problems and/or to provide opportunities to obtain national economic, social or cultural benefits;
- scale and focus of research in *Strategic Research Priorities*;
- opportunities for researchers to pursue internationally competitive research in collaboration with organisations outside the higher education sector, targeting those who have demonstrated a clear commitment to high-quality research; and
- growth of a national pool of world-class researchers to meet the needs of the broader Australian innovation system.
Some Linkage Stats: Funding and Success Rates

Since 2005 there have been nearly 2200 instances of collaboration with Australian private companies, as partner organisations on linkage grants.
LP14

Number approved and partner contributions

Number of proposals approved*

Average partner contribution/project
Linkage - Instances of Collaboration by Org Type

- Non-Profit - International
- Non-Profit - Australian
- Higher Education - International
- Government - State & Local
- Government - Commonwealth
- Company/Industry Body - International
- Company/Industry Body - Australian
- Other
LP Linkages
Australia
2011-14
Partner Organisation Views: Why Use LP Scheme?

- Chance of success is reasonably high: 47% Important, 10% Not Important
- Possible to obtain larger grants: 76% Important, 2% Not Important
- Access to highly skilled research personnel: 88% Important, 2% Not Important
- Opportunity to build longterm relationships with uni researchers: 92% Important, 2% Not Important
Average ARC funding, PO contribution and number of PO on each LP project

The Partner Organisation must make a significant contribution in cash and/or in kind, to the project that is equal to, or greater than, the ARC funding.
Number of projects (all schemes) involving GLAM, by 2-digit FoR code (2008 to 2014)
Developing an application
Insights into grants process—the ARC perspective

• Consider first whether you are ready: idea, team, ROPE?
• Pay attention to rules, FAQs, eligibility
• The scheme objectives and the selection criteria - address every one of them
• Choose Field of Research Codes carefully
• Track Record – career interruption – the ROPE provision
• Consider layers of assessment
  – The detailed assessors – specialists, read 1-2 proposals
  – The ARC panel member – general experts, read 10-50
  – The ARC Panel – 150-400
• Benefit and summary
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
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 HCA proposals

• Fail to match the aims to the methods and research plan
• Make vague claims about conceptual breakthroughs (show don’t tell!)
• Neglect core disciplinary reference points, literatures and methodologies
• Neglect outcomes and benefit
• Contain a high rate of spelling and grammatical errors
• Are badly structured, difficult to follow, jargonistic
• Are not research
Responding to a 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