



# Research Funding and Early Career Fellowships



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December 2015

# Overview

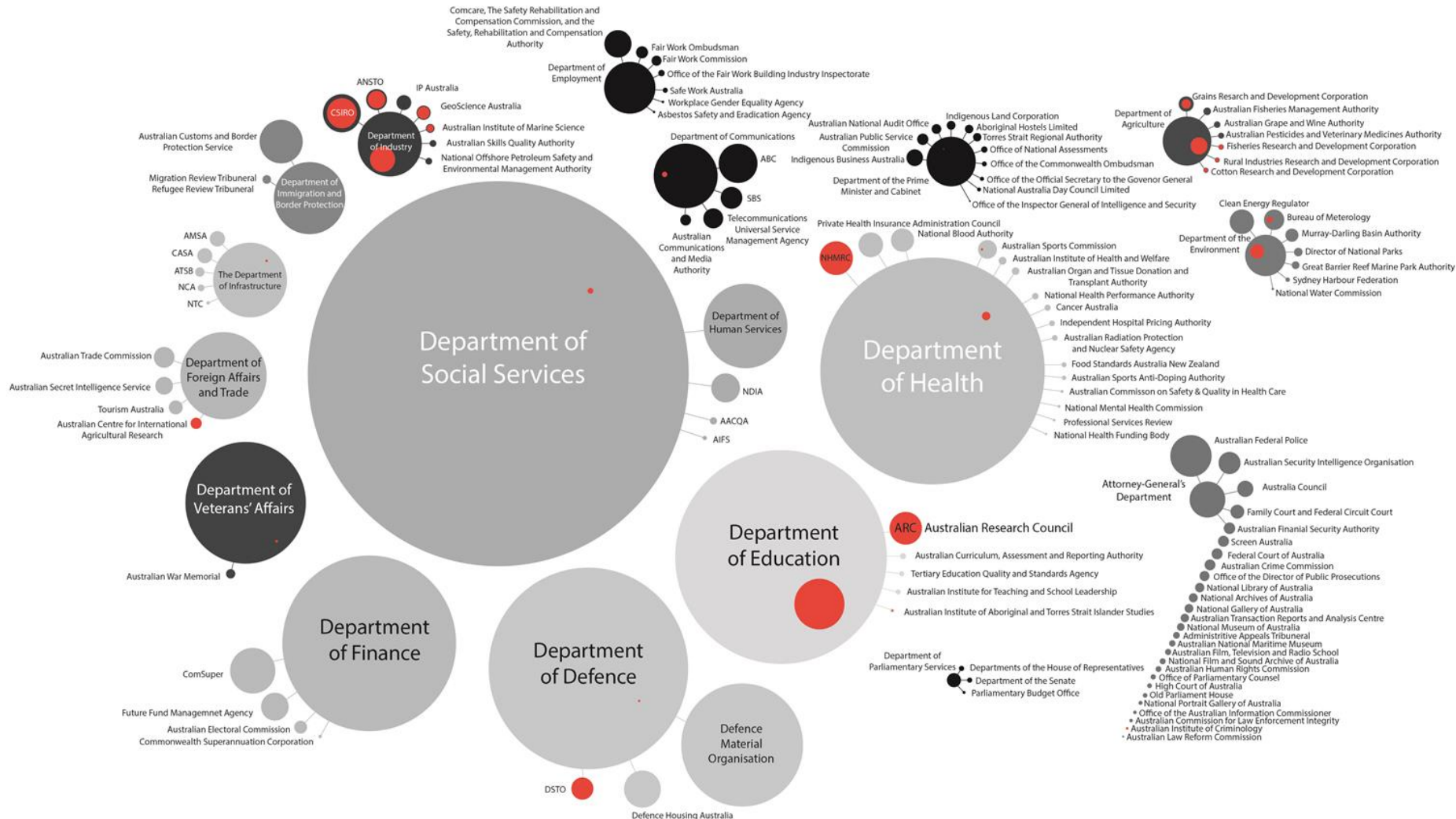
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- 1) Intro to research funding sources
- 2) Broad overview of NHMRC and ARC schemes and applications
- 3) Writing excellence statements

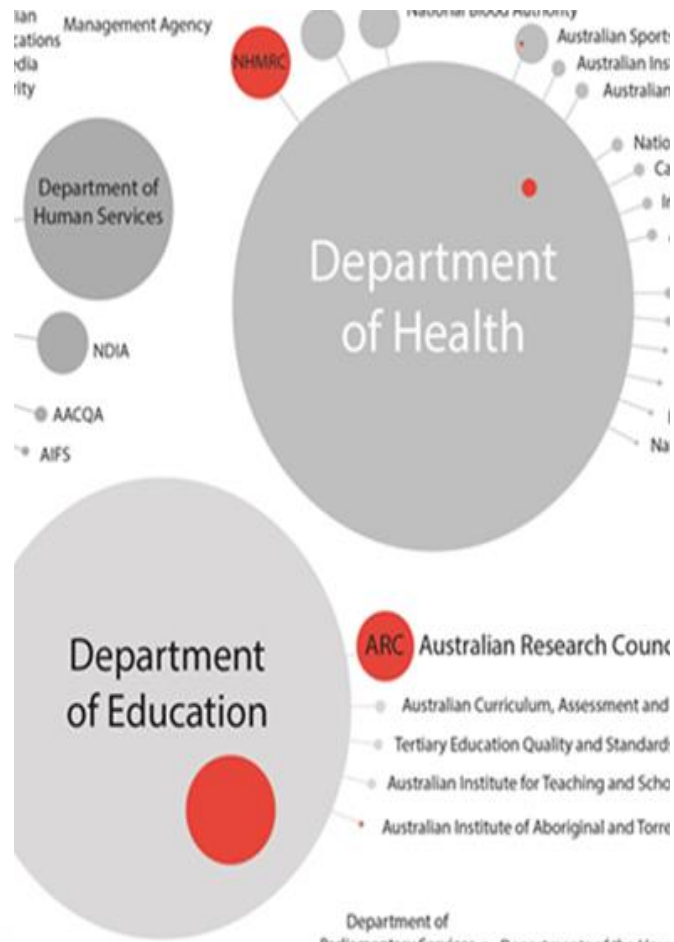


# Where's all the money?

Science, Research and Innovation in red

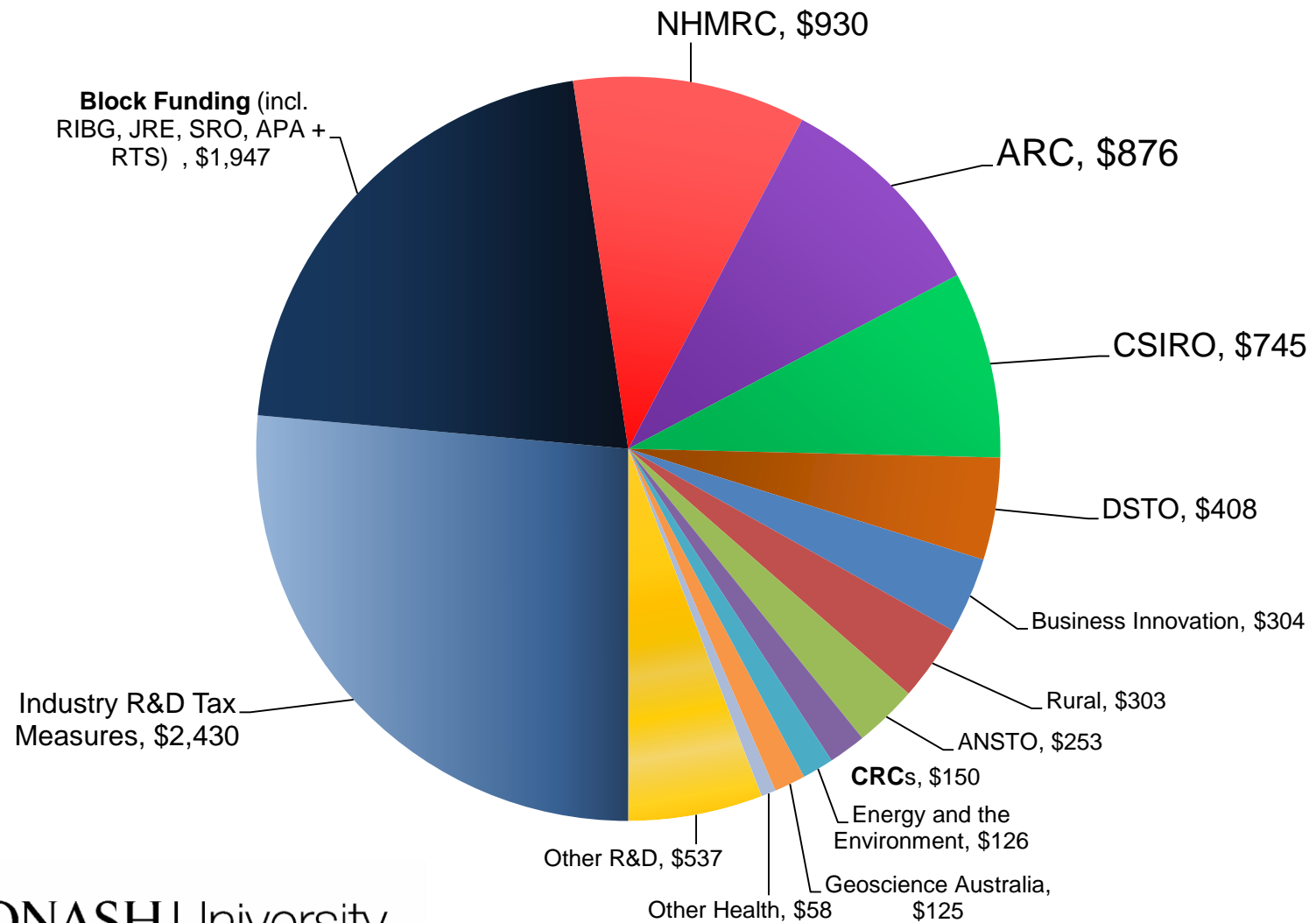


# Research Grants and Block Funding 2014-15



- National Health and Medical Research Council (NHMRC): \$930M
- Australian Research Council (ARC): \$876M
- Dept. of Education and Training
  - Research Infrastructure Block Grants: \$240M
  - Joint Research Engagement: \$380M

# Commonwealth Investment in R&D 2014–15 (\$m)



# Cat 1: Australian Competitive Grants Register

<https://education.gov.au/australian-competitive-grants-register>

## Commonwealth (Federal) Funded Grants

Eg

- ARC
- NHMRC
- OLT
- Dept of Health
- Cancer Australia

## Rural R&D

Eg Horticulture Innovation Australia

## Non-Commonwealth Grants

Eg

- Alzheimer's Australia Dementia Research Foundation
- Bupa Foundation
- Diabetes Australia Research Trust
- NBCF
- NHF
- Leukaemia Foundation
- Multiple Sclerosis Research AU
- Prostate Cancer Foundation AU
- And more



# Category 2, 3 and 4 funding

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**Cat 3: Industry  
and other  
research income**

**Contracts, Grants,  
Donations,  
Domestic HDR**

**Cat 2: Other public  
sector research  
income**

**Federal Gov    Local Gov**

**State Gov**

**Cat 4: Cooperative  
Research Centre  
Funding (CRCs)**



# Australia's Major Research Funding Bodies

## Australian Research Council (ARC)

## National Health and Medical Research Council (NHMRC)

Research that may ultimately have medical applications



Research with human health and medical goals

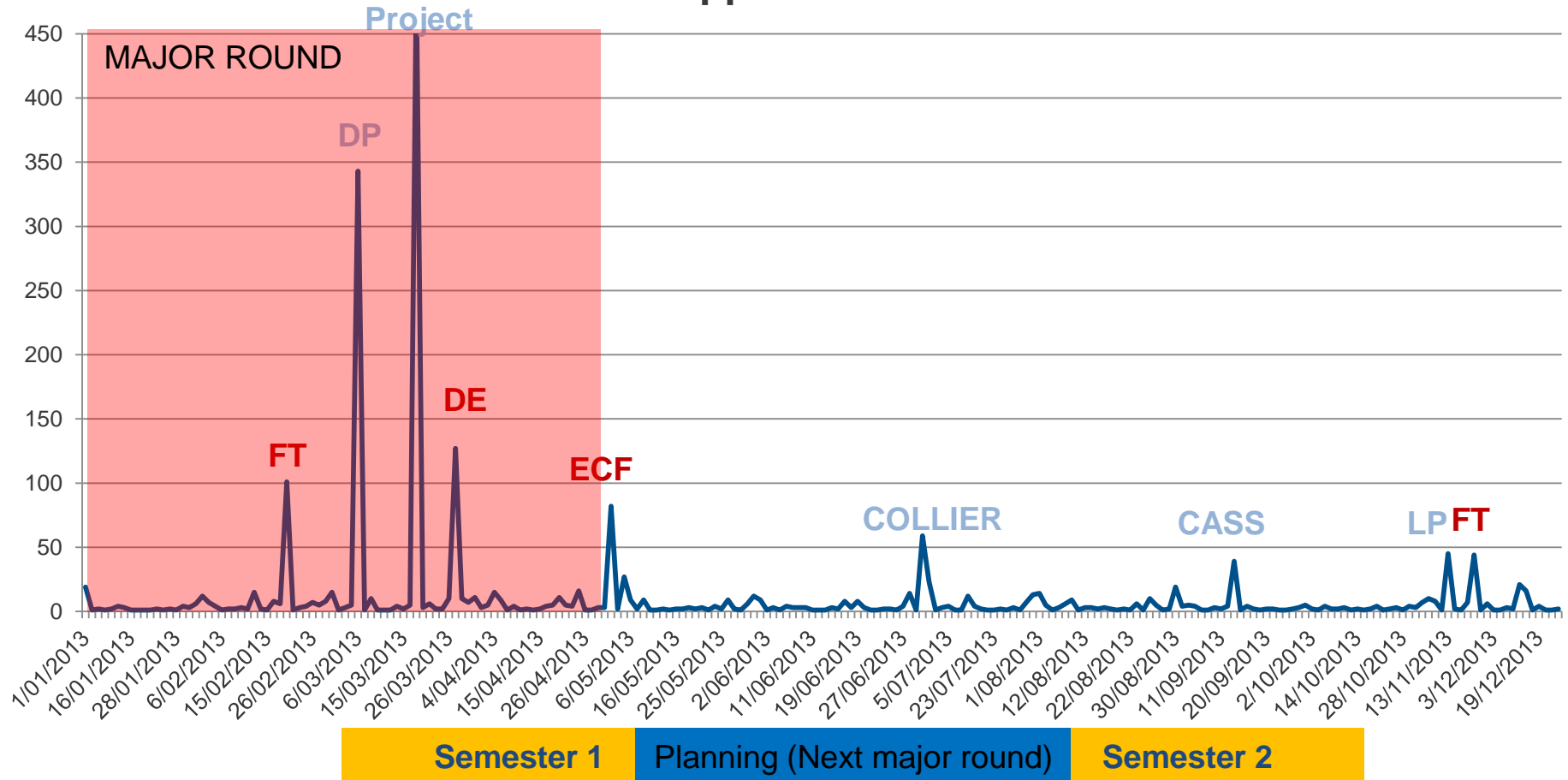


Interventional research with humans





## Research Grant Applications at Monash 2013



**MONASH** University

# NHMRC Funding Schemes

## Grants to Build Australia's Future Capability

- PG Scholarships
- Early Career Fellowships
- Career Development Fellowships
- Research Fellowships
- Practitioner Fellowships
- TRIP Fellowships
- Equipment Grants
- NHMRC-ARC Dementia Research Development Fellowship

## Grants to Create New Knowledge

- Program and Project Grants

## Work with Partners

- Partnership Projects and Centres

## Collaborative Grants

- eg NHMRC–EU Collaborative Research Grants

## Grants to Accelerate Research Translation

- Centres of Research Excellence
- Development Grants
- Dementia Research Team Grants
- Targeted and Urgent Calls for Research

## PERSONNEL SUPPORT PACKAGES

\$ PER  
ANNUM

PSP1 - Technical support - non-graduate personnel

52,699

PSP2 - Junior graduate research assistant; or junior graduate nurse, midwife or allied health professional; or junior data manager/data analyst

65,805

PSP3 - Experienced graduate research assistant/junior postdoctoral research officer; or experienced graduate nurse, midwife or allied health professional; or experienced data manager/analyst

72,359

PSP4 - Experienced postdoctoral researcher (i.e., a researcher who may be considered as a named investigator on the research application and/or approaching the NHMRC CDF scheme or equivalent), or clinician without specialist qualifications

85,466



# ECF Success Rate

Broad Research Area	2012			2013			2014		
	# Apps	# Grants	Funded Rate %	# Apps	# Grants	Funded Rate %	# Apps	# Grants	Funded Rate %
Basic Science	215	58	27.0	208	48	23	249	55	22.1
Clinical Medicine and Science	131	37	28.2	172	45	26	154	37	24.0
Health Services Research	20	5	25.0	31	7	23.0	37	8	21.6
Public Health	97	28	28.9	112	28	25	118	25	21.2
<b>Total</b>	<b>463</b>	<b>128</b>	<b>27.6</b>	<b>523</b>	<b>128</b>	<b>24.0</b>	<b>558</b>	<b>12.5</b>	<b>22.4</b>



# ECF BENCHMARKING

NHMRC 2011 Output	
Criterion	
Peer reviewed journal publications (aim for FLAP)	11 (2-60) 8 Bio, 12 Clin, 14 HSR 50% First author
Review articles	>1
National / International meeting presentations	Average 5 (Nat), 3 (Int)
Grant Funding – competitive scheme	NHMRC Project 10%, NHMRC Postgrad 19%, Clin/PubHealth NHMRC 33%
Involvement – journal review, committee member, media interview, supervision	>1



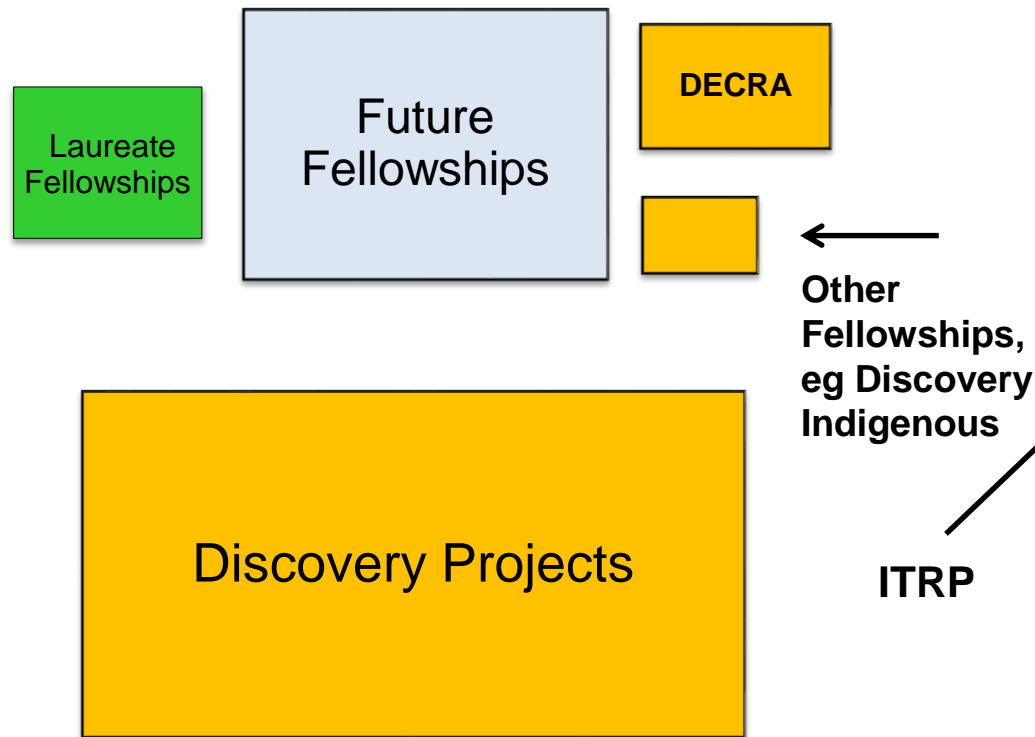
# CDF BENCHMARKING

Criterion	NHMRC 2011 Output
Peer reviewed journal publications	>17
Review articles	>2
International meeting presentations	>2
Grant Funding – competitive scheme	CIA
Leadership	Leads research group

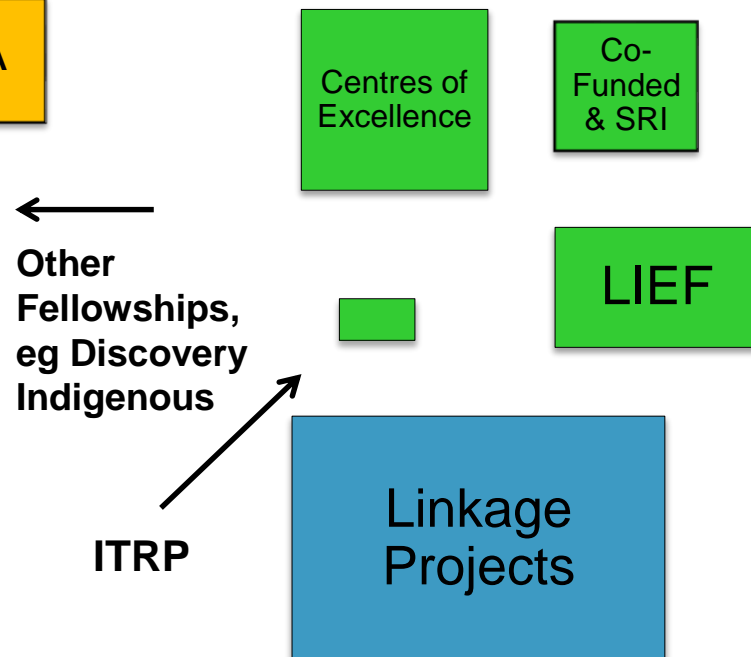


# ARC National Competitive Grants Program

## *Discovery Program*



## *Linkage Program*



Area of box represents \$\$ being awarded over 2008-2013; Note: ITRP and DECRA have run < five years



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# ARC Salary Options

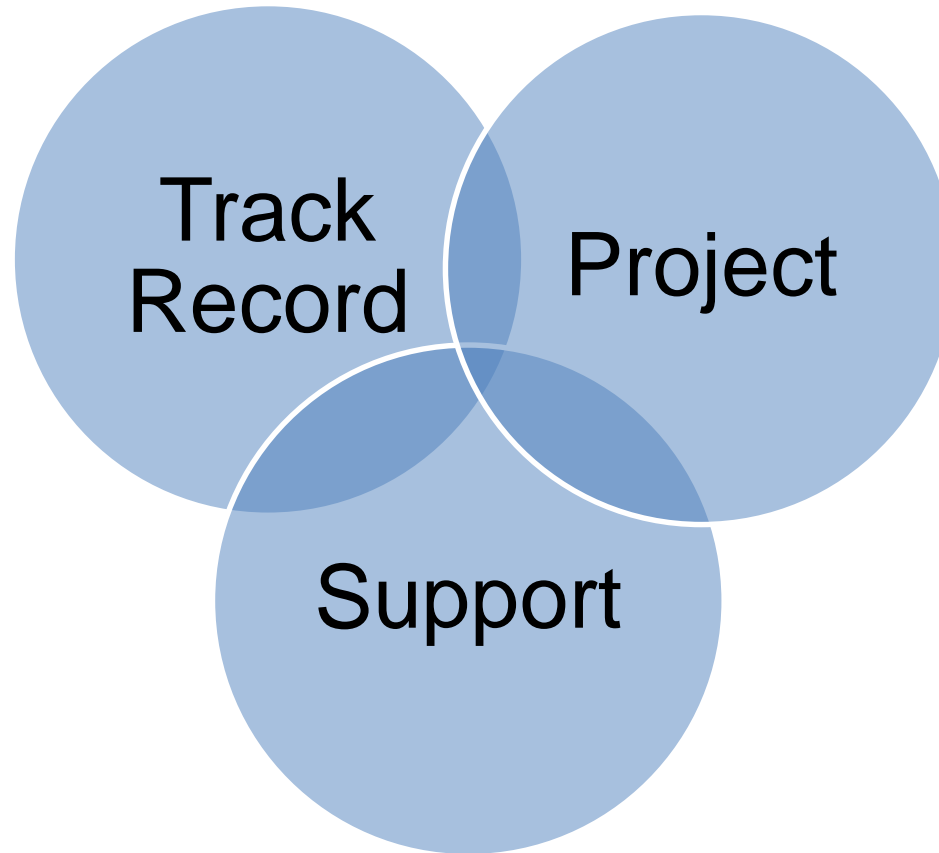
Scheme	Chief Investigator/ Fellow Salary	PD Research Associate/Postdoc
DECRA	✓	✗
Linkage Projects	✗	✓
Discovery Projects	✗	✓
Future Fellowships	✓	✓
ITRP	✗	✓
CoEs	✗	✓
Laureates	✓	✓





# Application Components

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# ARC and NHMRC CVs



RMS 2.0



ARC RMS – Person Profile	NHMRC RGMS – Profile and CV
Person Details	Profile
Qualifications	Qualifications, awards and prizes
Employment	Employment History
Availability	Appointments
Current ARC Projects	NHMRC and Other funding
	Conference Participation
	Research Impact (multiple sections)
	Publications
	Community Engagement
	And MORE!

# ARC ROPES



E.g. For DECRA Applications:

Career and opportunities for research

Significant research outputs (4 pgs)

Contributions to the field of research (1pg)



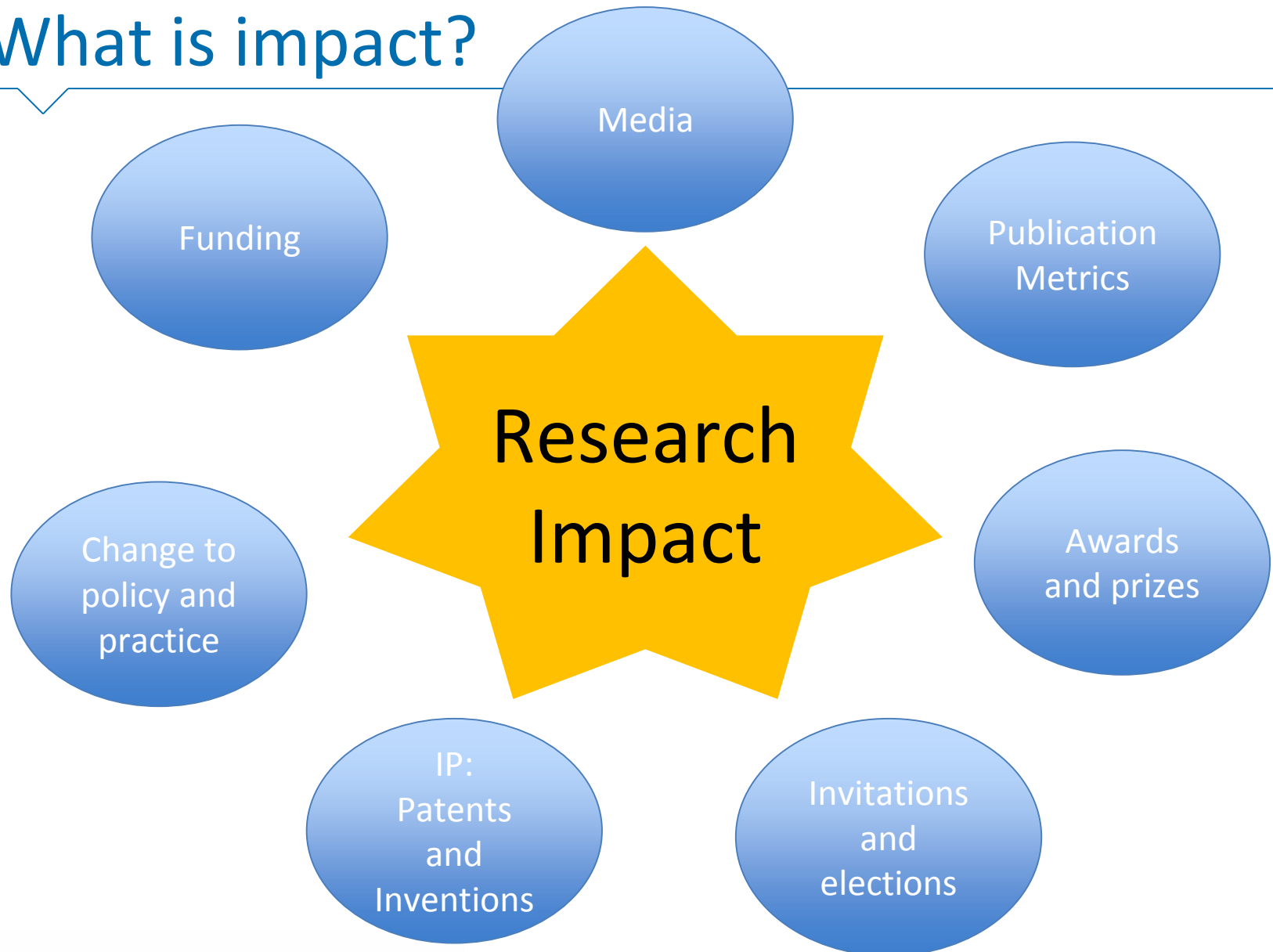
# Excellence Statements

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- Grant and fellowship applications
- Awards and prizes
- Pitch to industry
- Appointments and Promotions
- Online profiles



# What is impact?



# Definition of Research Impact

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Research impact is the demonstrable contribution that research makes to the economy, society, culture, national security, public policy or services, health, the environment, or quality of life, beyond contributions to academia.

<http://www.arc.gov.au/research-impact-principles-and-framework>



## Research Impact Pathway

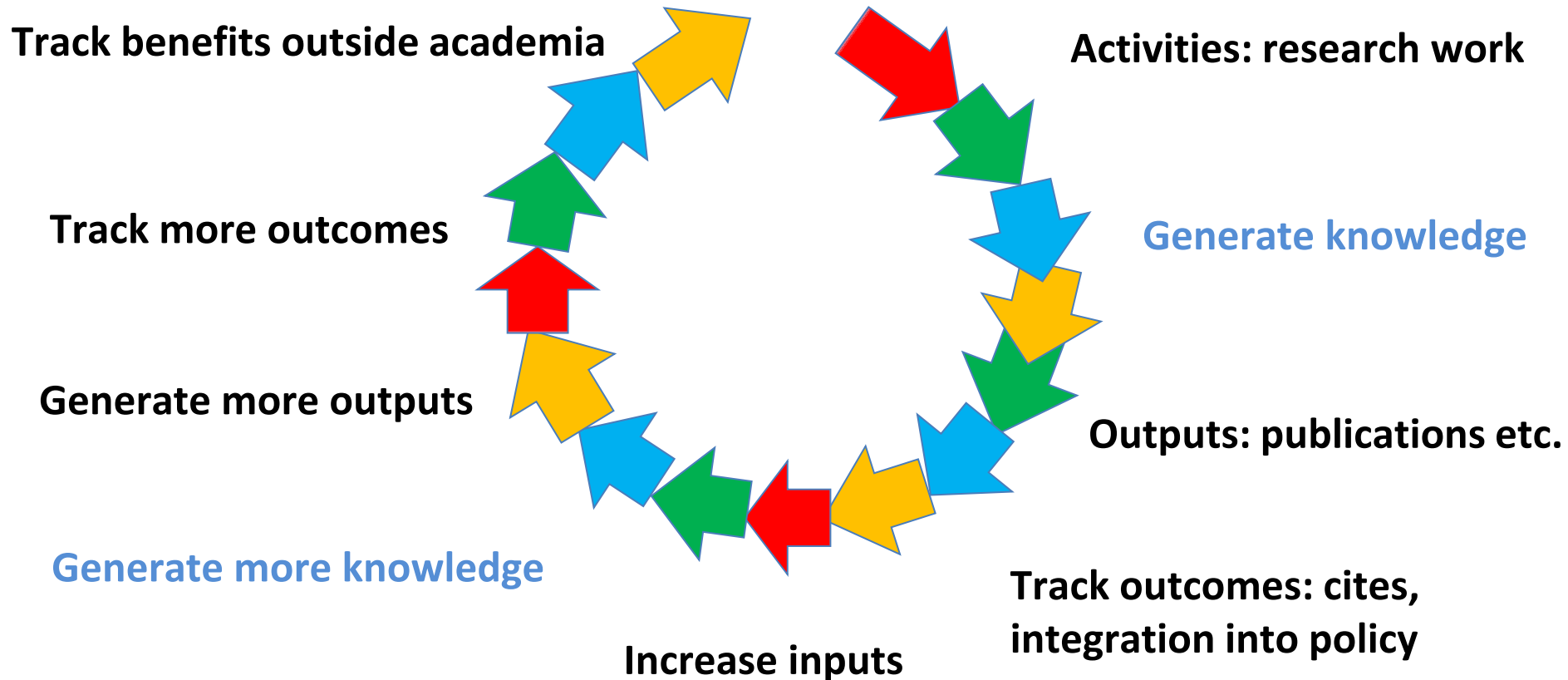
Inputs	Activities	Outputs	Outcomes	Benefits
<ul style="list-style-type: none"> <li>Research income</li> <li>Staff</li> <li>Background IP</li> <li>Infrastructure</li> <li>Collections</li> </ul>	<ul style="list-style-type: none"> <li>Research Work and Training</li> <li>Workshop/Conference Organising</li> <li>Facility Use</li> <li>Membership of Learned Societies and Academies</li> <li>Community and Stakeholder Engagement</li> </ul>	<ul style="list-style-type: none"> <li>Publications including E-Publications</li> <li>Additions to National Collections</li> <li>New IP: Patents and Inventions</li> <li>Policy Briefings</li> <li>Media</li> </ul>	<ul style="list-style-type: none"> <li>Commercial Products, Licences and Revenue</li> <li>New Companies – Spin offs, Start Ups or Joint Ventures</li> <li>Job Creation</li> <li>Implementation of Programs and Policy</li> <li>Citations</li> <li>Integration into Policy</li> </ul>	<ul style="list-style-type: none"> <li>Economic, Health, Social, Cultural, Environmental, National Security, Quality of Life, Public Policy or Services</li> <li>Higher Quality Workforce</li> <li>Job Creation</li> <li>Risk Reduction in Decision Making</li> </ul>

Link via: <http://www.arc.gov.au/research-impact-principles-and-framework>

# Research impact in practice

Understand significance to academia

Inputs: income, staff, etc.





# Excellence Statements

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- Grant and fellowship applications
- Awards and prizes
- Pitch to industry
- Promotions
- Online profiles

Experts in  
your field

Non-expert  
academics

Broader  
Society

Industry



# ECF Criteria

Criterion 1	Criterion 2	Criterion 3
Research Output – Relative to Opportunity <b>50%</b>	Research Proposal and Environment <b>30%</b>	Professional Contribution – Relative to Opportunity <b>20%</b>
<b>Scoring Descriptors for a Score of 7 (Highest score possible)</b> An application which clearly and strongly supports the aims of the scheme and meets all the assessment criteria with no weaknesses. It is expected that the top 2% of applications would be ranked in this category		
Has an exemplary record of research output relative to their discipline as assessed in terms of (for example): <ul style="list-style-type: none"> <li>o quantity and quality of research publications in their field</li> <li>o grant funding</li> <li>o conference presentations</li> <li>o influence on policy or practice</li> <li>o patents</li> </ul>	The research proposal: <ul style="list-style-type: none"> <li>o has objectives that are extremely well-defined</li> <li>o is flawless by design</li> <li>o will be achieved</li> <li>o addresses an issue of utmost importance to human health</li> </ul> The research environment: <ul style="list-style-type: none"> <li>o is extremely appropriate for the proposed research</li> <li>o provides exemplary mentoring and training arrangements</li> </ul> Justification for remaining in the same research group is sound (if applicable)	Is an exemplary contributor to research as assessed in terms of (for example): <ul style="list-style-type: none"> <li>o recognition through prizes and awards</li> <li>o supervisory experience</li> <li>o broader community engagement as well as contribution to the research community</li> <li>o peer review experience</li> </ul>



# ARC standard assessment criteria

- Does the research team have appropriate expertise and capacity for the research (ROPE)?
- Does the research address an important problem?
- How will the aims, concepts, methods or results advance the knowledge base of the discipline?
- Is the research environment appropriate?

Assessment Criterion	DP	LP	DE	FT
Investigator(s)	40%	20%	35%	40%
Project Quality and Innovation	25%	40%	40%	35%
Feasibility/Benefit	20%	-	10%	15%
Research Environment	15%	10%	15%	-
Partnership/Collaboration	-	30%	-	10%



# Funding environment context for excellence

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Higher Education Research Data Collection (HERDC)

Excellence in Research for Australia (ERA)

- Journal Rankings 2010 (A\*, A, etc)
- Rating of departments against world standard

San Francisco Declaration of Research Assessment (DORA)

# Disciplinary context for excellence

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Investigate your field:

- Thomson Reuters Essential Science Indicators
- Research leaders in your field (e.g. on Scopus)
  - Nationally
  - Internationally
- Discuss discipline expectations with your supervisors and mentors



# Grant or Fellowship Executive Summary

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One line to a few paragraphs summarising your strongest case for appointment or award.

Audience: Expert and non-expert academics

Aim: Show excellence at application and your rising trajectory

Content: It depends on the selection criteria

Publication output: quantity and quality of pubs, conferences, etc.

Research Contribution: significance and innovation

Contribution to Field: committees, conference org, peer review etc

Esteem measures: awards and invitations

All considered relative to opportunity



# Executive Summary

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I am an emerging leader in XXXXXXXXXXXXXXXX research. My 20XX PhD, supported by an NHMRC scholarship, enabled me to master [insert specific] skills to [insert activity]. I conducted the first study in the world to ....

Published in *Journal* (20XX), this first author paper was awarded the prestigious ... Prize for best research article.

# Executive Summary Continued

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My N published and accepted peer reviewed articles appear in Q1 and Q2 journals (Thomson Reuters). Additionally, I have delivered N oral and >N poster presentations, including as invited speaker at the International Conference of X, the premier international conference in my discipline. In 2011, I successfully applied for and now lead a \$X,000 grant for [insert aim/outcome]

NHMRC Early Career Fellowship



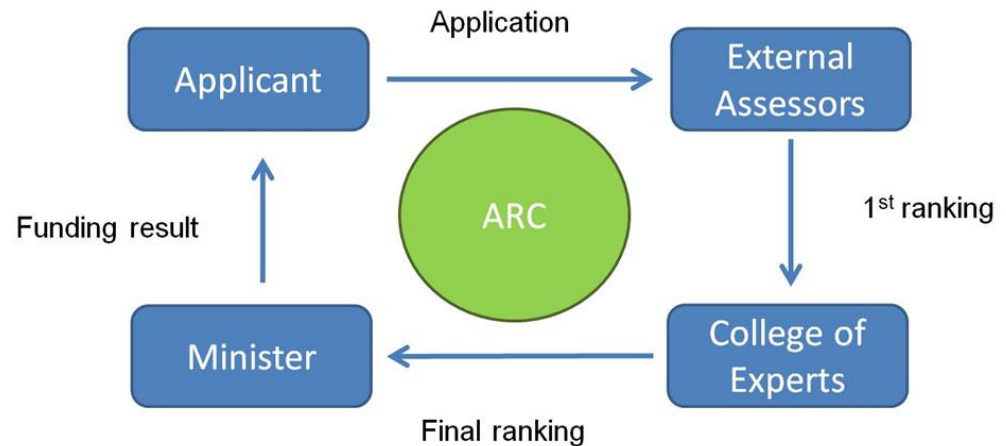
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# ARC Process in a Nutshell

- Assigned to a panel via FOR code
- Sent for external assessment (~ 7000 in database)
- Assigned to 2 panel members (Primary, Secondary)
- Score against selection criteria
- Merit list
- Rejoinder
- Meeting

–Open discussion ~5min



# Making it readable for the Assessor

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- ✗ *“It annoys me when I have to read 2 pages just to find out what your aim is!”*
- ✗ *I found reviewing this proposal frustrating as it contains a number of good ideas lost in a hopelessly messy structure*
- ✓ *“Overall VERY well written. Nicely broken up and very digestible, even for the non-experts.”*
- ✓ *“I rate it very highly - an extremely clear, well written proposal”*



# Questions?

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