ARC update for DVCsR

Professor Aidan Byrne
CEO, Australian Research Council
Outline

• Current Funding Landscape
• NCGP update
• Laureates & Centres
• Network mapping
• Impact
2014-15 Federal Budget
(Approx. AU$415 Billion)
Commonwealth Investment in R&D 2014-15

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

Source: Budget 2014-2015 Industry and Innovation tables
Selected research agencies 2003-2015 funding ($m)
Trends in Government R&D investment 2003-2015 ($m)
ARC funding by institute 2010-2014
Outline

• Current Funding Landscape
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National Competitive Grants Program

**Discovery Programs**

- Laureate Fellowships
- Future Fellowships
- DECRA
- Other Fellowships

**Linkage Programs**

- Centres of Excellence
- Co-Funded & SRI
- LIEF
- Discovery Projects
- Linkage Projects

Area of box represents $$ awarded over the period 2008-2013. N.b. ITRP & DECRA running for less than five years.
Centres of Excellence

• Next Round
• Consultation
• Process
• EOI requirements

*BSB = Biological Sciences and Biotechnology; EMI = Engineering, Mathematics and Informatics; HCA = Humanities and Creative Arts; PCE = Physics, Chemistry and Earth Sciences; SBE = Social, Behavioural and Economics Sciences

Source: 2014 Selection Report Table 1
Laureate Fellows

• Next Round
• Live round
• Post award relinquishment
• Eligibility (20%)

*BSB = Biological Sciences and Biotechnology; EMI = Engineering, Mathematics and Informatics; HCA = Humanities and Creative Arts; PCE = Physics, Chemistry and Earth Sciences; SBE = Social, Behavioural and Economics Sciences
Source: 2014 Selection Report Table 5
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• Current Funding Landscape
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Discipline
BSB
EMI
HCA
PCE
SBE

Normalised Rank

Funded
Discovery
Network = Go8

Each symbol represents up to 2 observations.
Future Fellowships rankings 2014

Dotplot of Normalised Rank
Network = Go8

Panel variable: discipline
Discovery Projects Grants rankings 2013

Discovery
Network = Go8

Additional feedback

Each symbol represents up to 2 observations.
Average age of lead CIs in DP grants (+DECRA 2012-2014)

DECRA average age ~35
Average age of lead CIs in DP grants (+DECRA 2012-2014 & FF 2009-2013)

$y = 0.0675x - 89.271$

$R^2 = 0.1905$
Average age of lead CIs in Future Fellowships, DP and DECRA
Histogram: age of lead CIs in DP + DECRA
First-time awardees by scheme 2008-2014
Participation and success of CIs in DP13 and DP14 by gender and career age
International Collaboration on ARC Funded Projects, 2009-2014

*Outcomes for 2014 are not complete and do not include funding for Future Fellowships, Australian Laureate Fellowships, Linkage Projects.
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LP Linkages

NSW

2011-2014

Higher Education
Government Commercial Non-profit/other
LP Linkages
Australia
2011-2014

Higher Education
Government
Commercial
Non-profit/other
FOR
Network mapping..
FOR Network mapping..

STEM 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 AND SERVICES
16 STUDIES IN HUMAN SOCIETY
17 PSYCHOLOGY AND COGNITIVE SCIENCES
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 disciplines highlighted
FOR Network mapping..

STEM alone

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

HASS alone

12 BUILT ENVIRONMENT AND DESIGN
13 EDUCATION
14 ECONOMICS
15 COMMERCE, MANAGEMENT, TOURISM AND SERVICES
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Source data:
http://www.arc.gov.au/general/searchable_data.htm
Total research income ($M) by discipline

HERDC Category 1-4

Commercialisation Income
Research income (%) by discipline

- Commercialisation Income
- HERDC Category 1-4

Disciplines:
- 01 Mathematical Sciences
- 02 Physical Sciences
- 03 Chemical Sciences
- 04 Earth Sciences
- 05 Environmental Sciences
- 06 Biological Sciences
- 07 Ag and Vet Sciences
- 08 Info and Computing Sci
- 09 Engineering
- 10 Technology
- 11 Medical and Health
- 12 Built Environment and Design
- 13 Education
- 14 Economics
- 15 Commerce, Mgmt. Tourism
- 16 Studies in Human Society
- 17 Psychology and Cognitive Sci
- 18 Law and Legal Studies
- 19 Creative Arts and Writing
- 20 Language Comms and Culture
- 21 History and Archaeology
- 22 Philosophy and Religion
Mapping Engagement:

Linkage Projects vs. Discovery Projects

Strength in scheme: $112m avg. p.a. $LP + $DP
$50m
$12m

QLD
NSW
VIC
NT
SA
WA
TAS
ACT
Engagement by Cohort
Strength in Linkage and Discovery Schemes

Group of Eight

Non-Aligned

Innovative Research Universities

Regional Universities Network

Australian Technology Network

Discovery

Linkage
Engagement by University
Strength in Linkage and Discovery Schemes
Discussion/questions