How best to stimulate Australia’s quality research sector

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Outline

• Budget environment
• ARC Schemes linking with industry
• ERA & Impact
• Open Access
• Q&A
Commonwealth Investment in R&D 2013-14

- **ARC**: 10.23%
- **NHMRC**: 9.93%
- **APA + RTS**: 10.93%
- **RIBG+JRE+SRE**: 8.48%
- **Industry R&D Tax Measures**: 19.44%
- **CSIRO**: 8.76%
- **DSTO**: 4.94%
- **Other Innovation Support**: 5.00%
- **Other Govt R&D**: 7.41%
- **Other Innovation Support**: 5.00%
- **Rural**: 3.94%
- **Multisector Science Support**: 2.44%
- **Energy and the Environment**: 2.39%
- **CRCs**: 1.67%
- **Other Higher Ed R&D Support**: 3.39%
- **Other health**: 1.00%

Source: Budget 2013-2014 Industry and Innovation tables
ARC Schemes Linking with Industry
National Competitive Grants Program

**Discovery Programs**
- Laureate Fellowships
- Future Fellowships
- DECRA
- Other Fellowships

**Linkage Programs**
- Centres of Excellence
- Co-Funded & SRI
- LIEF
- ITRP (growing!)
- Linkage Projects

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

National Competitive Grants Program (NCGP)

Linkage Program

- Linkage Projects
- Industrial Transformation Research Program
- Linkage Infrastructure, Equipment and Facilities
- Centres of Excellence
- Co-Funded Centres
- Special Research Initiatives
- Linkage Learned Academies Special Projects
The Industrial Transformation Research Program

Overall objectives:

• foster important partnerships between business and universities;

• support researchers (higher degree by research & post doctoral fellows) to gain ‘hands-on’, practical skills and experience in important priority areas.

Consists of two schemes:

*Industrial Transformation Research Hubs*

*Industrial Transformation Training Centres*

Cutting the Cheese at the opening of ARC Dairy Hub, a partnership with The University of Melbourne, University of Queensland and Dairy Innovation Australia Ltd.
Collaborating Countries on ARC Linkage Projects Grants 2005-2013

- United States: 26%
- United Kingdom: 15%
- Canada: 7%
- Germany: 6%
- China: 5%
- New Zealand: 5%
- France: 4%
- Netherlands: 2%
- Switzerland: 2%
- Sweden: 2%
- Italy: 2%
- Singapore: 2%
- Japan: 3%
- Other: 17%
LP Linkages

Monash

2011-14

Higher Education
Government
Commercial
Non-profit/other
LP Linkages
University of Melbourne
2011-14

Higher Education
Government
Commercial
Non-profit/other
LP Linkages
Cochlear Limited
2011-14

Higher Education
Government
Commercial
Non-profit/other
LP Linkages
Australia
2011-14

Higher Education
Government
Commercial
Non-profit/other
Research Infrastructure

Linkage Infrastructure, Equipment and Facilities (LIEF)

LIEF Projects Total Funding $m

Partners
ARC
Research Infrastructure

Higher education reform package:
• $150 million for the National Collaborative Research Infrastructure Strategy (NCRIS) for 2015–16,
• Undertaking a positive review of future research infrastructure needs to guide action beyond 2016.

Infrastructure support: case study

In a large NSF infrastructure project: funding is spread among three streams
• Development;
• Implementation, and;
• Operation.
ERA and Impact
ERA 2010, 2012
Income and Quality

HERDC income Cat 1-3 by rating - 2010

2010

- National Competitive G
- Other Public
- Industry
Income and Quality

HERDC income Cat 1-3 by rating - 2012

ERA rating
Patent/Relative Citation Impact by ERA 2012 Rating (4-digit)

Number of patents vs. Relative Citation Impact (1.0=world average; Custom World Data from Elsevier Scopus)

High impact?
High impact and high quality?
High quality?
Discussion/questions