Partner or perish: diversifying research funding

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Selected research agencies 2003–2016
funding ($m)

Source: Science, Research and Innovation Budget Tables 2015–16
Culture and Capital
- Tax incentives for early stage investors
- Intangible asset depreciation

Collaboration
- Critical research infrastructure
- Incentives for engagement
- Global innovation

Talent and Skills
- STEM and Digital Literacy
- Visas

Government as Exemplar
- Business Research and Innovation Initiative
- Digital marketplace

$1.1bn over 4 years
Senator the Hon Simon Birmingham
Minister for Education and Training
Senator for South Australia

Media release

21 November 2016

2017 pilot to test impact, business engagement of researchers

The Turnbull Government will pilot ways to measure the impact of university research and their engagement with business and industry in 2017 after today opening applications for institutions to take part ahead of a national rollout of the assessment system in 2018.

Minister for Education and Training Simon Birmingham said the pilot was the next step in the Turnbull Government’s National Innovation and Science Agenda to ensure that taxpayer funds were being targeted at research and initiatives that would ultimately pay dividends for Australian young people, old people, mums and dads.

“The ‘Engagement and Impact Assessment’ is about incentivising the smart and talented people working in our labs and universities to better focus on research that has wider economic and social benefits,” Minister Birmingham said.
$20Bn Medical Research Future Fund

- $18M national alliance of clinical trial networks
- $8M to support fellowships for clinical researchers
- $10M to Advance Health Research and Translation Centres
- $10 million to boost preventive health
Input from HERDC:

Research Income:
- Category 1: Australian Competitive Grants
- Category 2: Other Public Sector
- Category 3: Industry and Other
- Category 4: CRC

RSP ($879m)

25% Competitive ($253.0m)

52.8% Engagement ($464.5m)

25% Engagement ($253.0m)

Input from HESDC:

HDR Student Completions:
- Masters – high cost/low cost
- PhD – high cost/low cost
- Indigenous PhD – high cost/low cost
- Indigenous Masters – high cost/low cost

RTP ($1.01b)

50% Completions ($506.0m)

Note: funding amounts as at Budget 2016-17
Government Incentives

- **NSW Tech Vouchers**
  - Up to $15K matched by company (NSW based)

- **Commonwealth Innovation Connections**
  - Up to $50K matched by Australian company

- **Australian Research Council Linkage Grants**
  - ~$350K from government over 3 years, 25% minimum cash from company, 75% in kind

- **NHMRC Partnership Grants**
  - Up to $1.5m from government for up to 5 years, matched with cash/in kind from partner organisation(s)

- **NHMRC Development Grants**
  - Development Grants are available for 1-3 years. Applicants are required to fully and clearly justify their requested budget.

- **Co-operative Research Centre Projects**
  - Up to $3m from government over 3 years, matched in cash and in-kind from 2 Australian companies
In Closing (or opening??)

• The obsession with IP commercialisation has been a distraction/done us a disservice.

• Engagement is a core part of the university mission and necessary precursor to Impact

• More Engagement is happening than we are given (or giving ourselves) credit for and we need to recognise the value and scale of all the channels.

• We can significantly increase engagement by
  - giving permission
  - recognising the value
  - incentivising it.

• UNSW is structuring to optimise Knowledge Exchange as a key part of our 2025 strategy
Knowledge Exchange Model

**RESEARCH OUTPUTS**
- New Knowledge
- Publications
- Processes
- Materials
- Technology
- Know-how
- Innovation
- Skills

**KE CHANNELS**
- Outreach
- Facilities
- Consultancy
- CPD
- Contract Research
- Collaborative Research
- IP Licensing
- Company Creation & Investment

**USERS**
- Start-up
- Spin-out
- Society
- Government
- Policy-makers
- Entrepreneurs
- Small Co’s
- Big Co’s

**IMPACT**
- Jobs
- New Products
- New services
- Turnover
- Profit
- R&D expenditure
- % turnover from new products/services

**Knowledge Flow**
UK Data

- 57% of the total is represented by contract and collaborative research
- CPD and Consultancy contribute over 30% combined
- IP is the smallest single component
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UNSW Data compared with UK Data
Easy Access IP

We seek to licence most of our IP **for free** to partners who can demonstrate how it will benefit the community, society or economy.

To access, potential partners must:

- Demonstrate benefit to the economy
- Guarantee our right to do research
- Acknowledge the University’s contribution
- Do something within three years
Proposed high level organisational structure

Deputy Vice Chancellor Enterprise

Executive Assistant

Director of Knowledge Exchange
- Director of Consulting and CPD
- Senior KE Business Partner
- Senior KE Business Development Manager

Director of Entrepreneurship
- Senior Start Up Support Manager
- MCIC

Project Manager Precincts
- Project Manager - Torch

Director Policy and Government

Director of Operations
- UNSW Services
Partnership Pathway/Menu

Investment

Opportunities @ UNSW

Strategy:
- Easy to do business with
- Repeat business
## Industry…..researcher perspectives.

### Partner / End-user perspective

Researchers lack understanding of what the partner needs and how they operate.

Partner time lines driven by factors beyond the experience of many researchers.

Must be easy to find and access the relevant expertise.

Knowledge created by researchers is rarely in a form that can be easily translated or adopted.

Confidentiality and competitive advantage is paramount for industry.

Inelegant but practical solution is sufficient.

### Researchers perspectives

Partners don’t know how to engage in collaborative research.

Cultural challenges and expectations management of partners re: researcher incentives, student involvement and timelines.

Research incentives and reward systems not aligned with partner engagement.

Researchers networking tends to focus on academic rather than external partner collaboration.

Prefer the perfect solution.
Common Ground

Graduate Recruitment
Awards
Scholarships
Guest Lectures
Mentorships
Industry Nights
Site Visits
Internships
Co-op Sponsorships

• Design Projects
• Honours Research
• High Degree Research
• Consulting
• Facilities Access
• Laboratory Access
• Tech Vouchers
• Long Term R&D
• Grant Funding
Benefits to researchers

• Access research projects with high global impact potential
• Application of fundamental research to industry problems
• Long-term research partnerships with SMEs, Australian and International companies
• ARC Linkages and NHMRC Development Grants and other leveraging
• Opportunities for students and post docs
• Access to industrial research centres or equipment/expertise not available on campus
• Reputational growth as the Australasian destination for innovative research
• Diversification of research funding sources

B3.1 UNSW Innovation and Entrepreneurship: We will embed innovation and entrepreneurship into our research and education culture

B3.2 UNSW Knowledge Exchange Agent: We will champion and promote knowledge exchange
How to get engaged?

- **Technology briefs**
  - What you do
  - Problems you can solve
  - Why this technology is innovative/important/more advanced

- **Capability statement**
  - Your capabilities behind a single technology/innovation

- **Language**
  - Chinese language skills are essential (yourself or group member)
  - Technical briefs and capability statement need to be bilingual

- Torch team can align your capability with Torch companies

- Use your own networks and contacts
Remember.....

- It takes lots of time, energy and commitment to build partner relationships
- The path is full of delays and blockages
- Don’t give up - Persevere, be determined, and resilient
- Just one trusted long term external partner can lead to multiple opportunities, including referrals
- Your research has real impact when put into use in society – keep pursuing this goal
- We are here to be active partners with you
In closing...

Partner or perish
Engagement – Partner – Impact
Multiple Touch Points
Multiple Channels
Stimulate Supply & Demand
Domestic and International Complementary support