Research Impact
6 August 2014

Dr Fiona Cameron
Executive Director
Australian Research Council
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.

It is the showcase for key stakeholders (government, industry and community) of the real benefits of investment in Australian research activities.
Why Now? Key issues about impact

- Increasing competition for research budget
- Need to demonstrate the value of research
- Types of Impact (peer, commercial, social, environmental, cultural)
- Diversity of outcomes from research disciplines and sector specificities
- How do you report it cost effectively?
What the ARC currently asks universities to report

NCGP data collected – eg., Centres of Excellence

• Scholarly Impact – publications, citations, invitations, prizes and awards, prestigious panels
• Research income
• Research training
• Engagement, End Users
• Commercial – patents, Plant Breeder Rights, commercialisation income, take up
• Collaboration with partner organisations
A reality check

Balance

• scale of investment ie fellowships versus ARC Centres of Excellence.
• the cost of collecting the data with its usefulness
Proposal form changes

• The proposal forms for all schemes now have an added question about research impact which reflects the ARC’s recently developed policy* on this issue.

• *Available on the arc web site.
Should we be worried about impact?

We shouldn’t be:

- Every aspect of the modern world is shaped by research. The impact of research is everywhere.

BUT

- Need to take care not to over-engineer
- Need to disentangle contributions
- Need to cope with diversity
- Need to avoid perversity

- Need to be clear about the **WHY!**
Small steps

- Research Impact
  - Definition
  - Principles

Initiative of Publicly Funded Research Agencies (PFRAs)

in 2012/13:
- Australian Institute of Aboriginal and Torres Strait Islander Studies – AIATSIS (Canberra)
- Australian Institute of Marine Science – AIMS (Townsville)
- Australian Nuclear Science and Technology Organisation – ANSTO (Sydney)
- Australian Research Council – ARC (Canberra)
- Commonwealth Scientific and Industrial Research Organisation – CSIRO (Canberra)
- Defence Science and Technology Organisation – DSTO (Canberra)
- National Health and Medical Research Council – NHMRC (Canberra)
- National Measurement Institute – NMI (Sydney)

in 2014:
- Geoscience Australia – GA (Canberra)
- Bureau of Meteorology – BOM (Melbourne)
Acknowledgement of working group

- **AIATSIS:** Lisa Strelein, Dylan Marsh,
- **AIMS:** Sue English
- **ANSTO:** Herma Buttner, Mike Siers
- **ARC:** Fiona Cameron (chair), Liz Visher, Tim Cahill, Alistair Gibson, Amy Phillips, John Murray, Sarah Howard
- **BOM:** Peter May
- **CSIRO:** Mark Bazzacco, Renate Hays, Mark Johnson, Jennifer Kelly
- **DSTO:** Mark Heinrich
- **GA:** Rhonda Henry
- **NHMRC:** Marcus Nicol, Henadeera Kumara
- **NMI:** Bruce Warrington
Australian research landscape

Prime Minister

John Howard  Kevin Rudd  Julia Gillard  K. Rudd  Tony Abbott

Minister and portfolio

Industry, Science and Resources
  Nick Minchin  Peter McGauran

Education, Science and Training
  Brendan Nelson  Julie Bishop

Tertiary Education, Skills, Science and Research
  Kim Carr

Innovation, Industry, Science and Research
  Chris Evans .CmdBowen

Innovation, Industry, Science and Research/Higher Education
  Ian Macfarlane

Science


Advancing Australia’s Ability

Research Quality Framework (RQF)

Excellence in Research for Australia (ERA)

Focusing Australia’s Publicly Funded Research Review - Maximising the Innovation Dividend Review Key Findings and Future Directions.

ERA trial

ERA 2010

ERA 2012

ERA 2015
Patent/Relative Citation Impact by ERA 2012 Rating (4-digit)

High impact?

High impact and high quality?

High quality?

Relative Citation Impact (1.0=world average; Custom World Data from Elsevier Scopus)

Number of patents
Why collaborate?

- understanding current arrangements
- return on investment (both retrospective and prospective)
- common understanding of the latest developments
- set of overarching principles and a common understanding of language
- identifying common data requirements
- consider new data
- identifying cost effective and efficient methodologies
- sharing experiences to promote research impact
Principles developed

- excellent research
- use of common language
- respect diversity in research disciplines/sectors
- a set of common, cost effective and efficient parameters for data collection and reporting
- consultative approach with stakeholders
- encourage, recognise and reward in planning, monitoring and evaluating
Guidance on operation

- Plan
- Report
- Assess
- Promote
Input

- Budget
- Staff
- Infrastructure
Activities

- Research
- Lecturing
- Workshops
Output

- Publications
- Patents
- Engagement, community outreach
- Reviews
Outcomes

- Licences, revenue
- Customer/user feedback/survey
- Spin-offs
Impact

- Job creation
- Improved safety
- Joint ventures
- Economic $$
Benefit

- Culture
- Economy
- Environment
- Health
- National security
- Public policy / services
- Quality of life
- Society
The CRC Program supports industry-led research partnerships between publicly funded researchers, business and the community to address major long term challenges.

- Impact tool user guide – performance review
The Impact Tool to both forecast and assess performance throughout the life of a CRC
Cotton farming

Namoi catchment - second largest cotton growing region in Australia

Cotton major export earner

Cotton Research and Development Corporation

Integrated model for water management and farming

Translation of model to other areas
Monash Vision Group

Monash Vision Group (Monash University, Alfred Health, MiniFAB and Grey Innovation):

develop research capabilities in medical bionics for vision restoration

produce a cortical prosthetic prototype device (demonstrated in at least one recipient by 2014)

http://www.monash.edu.au/bioniceye/

The Monash Vision system will combine state-of-the-art digital and biomedical technology with consumer-friendly glasses.