



**Australian Government**  
**Australian Research Council**

# AUSTRALIAN RESEARCH COUNCIL

---

**ANNUAL REPORT 2016-17**

---



# AUSTRALIAN RESEARCH COUNCIL

ANNUAL REPORT 2016-17

## AUSTRALIAN RESEARCH COUNCIL ANNUAL REPORT

<b>Produced by</b>	Australian Research Council
<b>Location</b>	11 Lancaster Place, CANBERRA AIRPORT ACT 2609
<b>Postal address</b>	GPO Box 2702, CANBERRA ACT 2601
<b>Telephone:</b>	+61 2 6287 6600
<b>Facsimile</b>	+61 2 6287 6601
<b>Email</b>	info@arc.gov.au (general enquiries) communications@arc.gov.au (media enquiries)
<b>Home page:</b>	<a href="http://www.arc.gov.au">www.arc.gov.au</a>
<b>Annual report</b>	<a href="http://www.arc.gov.au/annual-reports">www.arc.gov.au/annual-reports</a>
<b>Designed by</b>	<a href="http://giraffe.com.au">giraffe.com.au</a>
ISSN (print)	1444-982x
ISSN (digital)	2202-0683

© Commonwealth of Australia 2017

All material presented in this publication is provided under a Creative Commons Attribution 3.1 Australia licence ([creativecommons.org/licenses](http://creativecommons.org/licenses)) with the exception of the Commonwealth Coat of Arms, the Australian Research Council logo, images, signatures and where otherwise stated. For the avoidance of doubt, this means this licence only applies to material as set out in this document. The details of the relevant licence conditions are available on the Creative Commons website as is the full legal code for the CC BY 3.0 AU licence.

Requests and enquiries regarding this licence should be addressed to ARC Legal Services on +61 2 6287 6600.

# Letter of transmittal

4 October 2017

Senator the Hon Simon Birmingham  
Minister for Education and Training  
Parliament House  
CANBERRA ACT 2600

Dear Minister

It is with great pleasure that I present the Australian Research Council (ARC) Annual Report for 2016–17.

This report has been prepared for the purposes of:

- section 46 of the *Public Governance, Performance and Accountability Act 2013*, which requires that an annual report be given to the entity's responsible Minister for presentation to the Parliament
- section 46 of the *Australian Research Council Act 2001 (ARC Act)*, which requires that the report given to you must deal with
  - any matters required by other provisions of the ARC Act to be dealt with in the report (Ministerial directions)
  - any other matters that the Minister, by notice in writing to the Chief Executive Officer, requires to be dealt with in the report.

There were no relevant matters to be dealt with in the 2016–17 annual report as required under section 46 of the ARC Act.

As the Accountable Authority of the ARC, I certify that:

- fraud risk assessments and fraud control plans have been prepared
- appropriate mechanisms for preventing, detecting incidents of, investigating or otherwise dealing with, and recording or reporting fraud that meet the specific needs of the ARC are in place
- all reasonable measures have been taken to deal appropriately with fraud relating to the ARC.

Yours sincerely



**Professor Sue Thomas**  
Chief Executive Officer



# Contents

Letter of transmittal.....	iii
Contents.....	iv
A guide to this report .....	vi
<b>PART 1: REVIEW BY THE ACCOUNTABLE AUTHORITY.....</b>	<b>1</b>
1.1: From the Chief Executive Officer .....	2
1.2: Highlights of 2016–17 .....	6
<b>PART 2: AUSTRALIAN RESEARCH COUNCIL OVERVIEW.....</b>	<b>13</b>
2.1: Role and functions.....	14
2.2: Organisational structure .....	16
2.3: Performance framework .....	17
<b>PART 3: REPORT ON PERFORMANCE.....</b>	<b>21</b>
3.1: Annual Performance Statement .....	22
3.2: Financial performance.....	48
<b>PART 4: CASE STUDIES.....</b>	<b>51</b>
4.1: Case studies in support of the Annual Performance Statement.....	52
<b>PART 5: MANAGEMENT AND ACCOUNTABILITY .....</b>	<b>77</b>
5.1: Corporate governance.....	78
5.2: External scrutiny .....	90
5.3: Management of human resources.....	92
5.4: Assets management.....	99
5.5: Purchasing .....	100
5.6: Consultants .....	101
5.7: Australian National Audit Office access clauses and exempt contracts.....	102
5.8: Procurement initiatives to support small business .....	103
5.9: Other mandatory information .....	104

<b>PART 6: FINANCIAL STATEMENTS .....</b>	<b>107</b>
6.1: Financial statements .....	108
 <b>PART 7: APPENDICES.....</b>	 <b>153</b>
Appendix 1: National Competitive Grants Program funding schemes .....	154
Appendix 2: National Competitive Grants Program statistics.....	157
Appendix 3: Prizes and awards.....	159
Appendix 4: Resource statements .....	163
Appendix 5: Other mandatory information.....	165
 <b>PART 8: AIDS TO ACCESS.....</b>	 <b>171</b>
List of figures and tables .....	172
Abbreviations and acronyms.....	174
Glossary .....	177
Compliance index .....	180
Alphabetical index.....	186

# A guide to this report

<b>Part 1</b>	<b>Review by the Accountable Authority</b> The Chief Executive Officer (CEO) introduces the report (Section 1.1) and describes the highlights of 2016–17 (Section 1.2).
<b>Part 2</b>	<b>ARC Overview</b> We describe who we are and what we do (Section 2.1), our structure (Section 2.2) and performance framework (Section 2.3).
<b>Part 3</b>	<b>Report on Performance</b> We provide our Annual Performance Statement in accordance with requirements under the <i>Public Governance, Performance and Accountability Act 2013</i> (Section 3.1) and a report on our financial performance (Section 3.2).
<b>Part 4</b>	<b>Case Studies</b> We provide case studies to support the Annual Performance Statement in Part 3. The case studies illustrate the impact of the ARC's activities in funding research, evaluating research and providing policy advice (Section 4.1).
<b>Part 5</b>	<b>Management and Accountability</b> We report on management and accountability matters as required under the annual report guidelines. This includes our governance structures (Section 5.1), external accountability mechanisms (Section 5.2), people management activities (Section 5.3), financial management activities (Sections 5.4–5.8) and other mandatory information (Section 5.9).
<b>Part 6</b>	<b>Financial Statements</b> We provide the financial statements for 2016–17 (Section 6.1).
<b>Part 7</b>	<b>Appendices</b> We provide additional information to support the performance story provided in Parts 3, 4 and 5 of this report.
<b>Part 8</b>	<b>Aids to Access</b> This part provides material to help the reader access the report including a list of figures and tables, acronyms, glossary, compliance index and alphabetical index.

## STYLE CONVENTIONS

The following style conventions are used in the report:

- acronyms are spelt out for the first use in each section, except for the acronym for the Australian Research Council—ARC—which is used throughout
- n/a means not applicable (unless otherwise specified).

## CONTACT

Comments and enquiries about the report are welcome and should be directed to:

Director, Strategy and Governance  
Australian Research Council

Telephone: +61 2 6287 6600

Fascimile: +61 2 6287 6601

Email: [ARC-AnnualReport@arc.gov.au](mailto:ARC-AnnualReport@arc.gov.au)



# PART 1 REVIEW BY THE ACCOUNTABLE AUTHORITY

1.1 From the Chief Executive Officer	2
1.2 Highlights of 2016–17	6

# 1.1 From the Chief Executive Officer



Professor Sue Thomas

## INTRODUCTION

I am pleased to have this opportunity to introduce the Australian Research Council (ARC) Annual Report for 2016–17.

*The annual report is an important part of the planning and reporting framework at the ARC, providing a record of the activities undertaken during the year. The ARC is a strongly performing organisation and, as a relative newcomer to the ARC, I am looking forward to engaging with our stakeholders about future directions.*

## SIGNIFICANT ISSUES AND DEVELOPMENTS

During 2016–17 the Australian Government continued to build on its framework for innovation, science and research. Agencies delivered on the initiatives identified in the *National Innovation and Science Agenda* (NISA); and Innovation and Science Australia finalised a *Performance Review of the Australian Innovation, Science and Research System* and released an issues paper to prompt discussion on where Australia wants innovation, science and research to be by 2030.

The ARC has responsibility for two key initiatives announced as part of NISA, a new Engagement and Impact (EI) assessment, and implementation of a continuous application process under the ARC Linkage Projects scheme.

The EI assessment aims to encourage universities to focus on improving their engagement and the translation of research into wider economic, social, cultural and other benefits. At the time of writing this, a pilot EI assessment exercise has been completed. It was a challenging time for the ARC, balancing deadlines with the requirement for a robust methodology accepted by stakeholders. There will be further feedback opportunities for universities over the coming months as a review of the pilot takes place. The pilot and the review will inform the development of the EI assessment in 2018.

Implementation of the continuous application process under the Linkage Projects scheme is now one year old, with the first proposals accepted by the ARC on a continuous basis from 1 July 2016. This initiative has also had its challenges, requiring a significantly different approach by the ARC, our assessors, universities and partner organisations. We have achieved our goal of announcing all outcomes within six months of a proposal being submitted to the ARC, but it is still too early to determine how well the initiative is performing in other respects. We will be monitoring progress very closely as time goes on.

## PERFORMANCE AND FINANCIAL RESULTS

In 2016–17, there were a number of performance highlights in relation to the ARC's three key activities (funding high-quality research; assessing the quality, engagement and impact of research; and providing policy advice on research matters) and its organisational capability.

### Funding the highest quality research

In 2016–17, with the help of its assessors, the ARC processed 6412 proposals for funding under the National Competitive Grants Program (NCGP). A total of 1346 proposals were awarded funding.

The number of research projects we fund is the visible result of our activities. The less visible, but more important result is the changes in behaviour facilitated by ARC support. In the short term, these research projects help build Australia's research capacity; encourage students to take up a research career; support the employment of a large number of professional staff in universities; facilitate access to national and international research infrastructure; and support Australian researchers to conduct the highest quality research. In the longer term, ARC-funded research projects produce new knowledge about the world we live in and deliver ongoing environmental, health, cultural, social and economic benefits for Australia.

During the year, some of the research funded by the ARC received negative media attention based on the summaries of research released at the time of announcement. However, the ARC has a strong commitment to funding research across all disciplines, with all fields of knowledge playing a role in contributing to Australia's future. Our rigorous peer review principles and processes ensure that funding is spent on the highest quality research—whatever the discipline—that will advance knowledge and benefit the community.

### Assessing the quality, engagement and impact of research

It is important to emphasise that the ARC remains committed to supporting both the highest-quality fundamental and applied research. The EI assessment, outlined above, will complement the ERA evaluation, which identifies and promotes excellence in research.

During 2016–17 the ARC continued its preparation for the upcoming 2018 ERA round, reviewing the guidance information for the 2018 submission process and seeking input from universities for updates to the ERA 2018 Journal List. The Journal List is integral to the ERA process. The ARC received a large number of submissions to the journal list consultation, reflecting the high levels of sector engagement when it comes to ERA and its assessment of the quality of research in Australia. The ARC will finalise and release the Journal List and draft submission guidelines in the first half of 2017–18.

### Providing advice on research matters

During the year the ARC continued to participate in policy forums and prepare policy documents. We:

- reviewed and re-released the *ARC Research Workforce Statement* and *ARC Statement of Support and Expectations for Gender Equality* (and released the *ARC Gender Equality Action Plan 2017*)
- drafted an ARC Intellectual Property Management Policy, addressing the recommendations of the Watt Review
- released a revised *ARC Research Integrity and Research Misconduct Policy*, further strengthening the ARC's requirements in relation to best practice research
- released a revised *ARC Open Access Policy*
- released an *ARC Statement of Support for Interdisciplinary Research*.

## Building and sustaining a strong organisational capability

The ARC administered a budget of \$777.9 million for 2016–17, comprising \$751.3 million for the administered appropriation and \$26.6 million for the departmental appropriation. Further information on the financial performance of the agency is provided in Section 3.2.

In 2016–17, the ARC expanded its program of direct engagement with grant recipients, holding workshops for research centre staff, new Australian Laureate Fellows, and recipients of Kathleen Fitzpatrick and Georgina Sweet Australian Laureate Fellowships. The workshops provided an opportunity for ARC staff to share post-award expectations as well as for researchers to network.

The ARC also looked for ways to better promote the outcomes of ARC-funded research. In June 2017, the ARC released a new publication *Making a difference—Outcomes of ARC supported research* to promote the fantastic research outcomes and excellent researchers supported by the ARC. The publication highlights the outcomes of both fundamental and applied research, across many disciplines and institutions, to demonstrate that ARC-funded research is making a real difference to Australia and the world.

## OUTLOOK FOR 2017–18

The ARC has a well-established schedule of responsibilities as indicated by the broad priorities for the coming year provided in the *2017–18 ARC Portfolio Budget Statements (PBS)*, listed below, as well as the more detailed strategies and actions identified in our corporate plan.

### ***PBS priorities:***

- delivering the NCGP effectively and efficiently
- completing preparations for and conducting the ERA 2018 evaluation
- continuing to support the Government's NISA by: conducting a continuous application process under the Linkage Projects scheme, and preparing for and conducting the full Engagement and Impact assessment to be undertaken in 2018 as a companion to ERA 2018
- contributing to other NISA initiatives as required
- continuing to provide high quality advice to the Minister on research matters including in areas of Government focus (for example, strengthening linkages between research and business)
- working with stakeholders in delivering program and policy responsibilities, including through consultations and in raising awareness
- continuing to monitor the performance of selected NCGP schemes through scheduled reviews and evaluations
- ensuring that the NCGP supports participation by all researchers, including Aboriginal and Torres Strait Islander researchers, women researchers and early and mid-career researchers
- maintaining a strong governance framework to support delivery against legislative requirements as well as the Government's expectations for the agency as articulated in the ARC Outcome.

## CONCLUSION

I would like to acknowledge the contribution of Ms Leanne Harvey who was Acting CEO of the ARC in the period between the departure of the previous CEO, Professor Aidan Byrne, and my commencement at the ARC. This was a significant portion of the period under review in this annual report.

The ARC's performance during the year was also made possible by the support of our stakeholders and staff and I thank everyone for their contribution. I am looking forward to the year ahead and achieving our 2017–18 goals.

# 1.2 Highlights of 2016–17

## POLICY ENVIRONMENT

### Science and Research Priorities

In May 2015, the Australian Government identified nine Science and Research Priority areas. The nine priority areas are: Food, Soil and Water, Transport, Cybersecurity, Energy, Resources, Advanced Manufacturing, Environmental Change and Health. The ARC supports the Government's Science and Research Priorities, and corresponding Practical Research Challenges through funding the highest quality research and research training through the National Competitive Grants Program (NCGP), aimed at building Australia's capacity in these areas.

### National Innovation and Science Agenda

In December 2015, the Government released its *National Innovation and Science Agenda* (NISA), which is aimed at building the commercial returns from research.

The ARC is responsible for implementing two measures announced as part of NISA: a continuous application process under the Linkage Projects scheme, which was implemented on 1 July 2016; and establishment of an Engagement and Impact (EI) assessment to be conducted as a companion exercise to Excellence in Research for Australia (ERA).

### Review of Research Policy and Funding Arrangements (the Watt Review)

In May 2016, the Government announced that it had accepted all 28 recommendations of the *Review of Research Policy and Funding Arrangements* (the Watt review).

The report contains a number of recommendations relevant to the ARC in the areas of competitive grants programs, intellectual property and assessment of engagement and impact. During 2016–17 the ARC commenced preparations to address those recommendations.

### Performance review of the Innovation, Science and Research System

The Government asked Innovation and Science Australia, an independent statutory board, to review the current performance of the innovation, science and research (ISR) system. The review concluded that Australia's ISR system shows uneven performance. There are some sectors where it performs very well and these are central to our international competitiveness. However in many areas, a lack of connectivity across the ISR system means that strong performance in research is not matched by similar performance in commercialisation.

### 2030 Strategic Plan for the Innovation, Science and Research System

The Government also tasked Innovation and Science Australia with developing a strategic plan for the Australian ISR system out to 2030. The 2030 Strategic Plan will identify investment and infrastructure priorities and areas for consideration by government. It will also outline how progress can be substantially evaluated. The 2030 Strategic Plan is scheduled to be delivered to government in the last quarter of 2017.

## National Science Statement

The *National Science Statement*, released in March 2017, sets out the Government's enduring science objectives and principles. It also positions the Government to respond to the science elements of the 2030 Strategic Plan for the ISR System in a considered and targeted manner. The Statement will continue to provide guidance for the Government's other science-related policies and initiatives into the future.

### **Key findings of the Performance Review of the Innovation, Science and Research System**

The ISR System Review made the following findings on the performance of the ISR System.

#### **Knowledge creation**

The origination of new ideas, often building on prior knowledge and driven by an aim to solve a problem.

**Overall finding:** Australia is above average.

#### **Knowledge transfer**

The identification and selection of knowledge for application and the passage of information between those who generated the knowledge and those who will apply the knowledge.

**Overall finding:** Needs to be improved.

#### **Knowledge application**

The development, trialing, testing, refinement and iteration of ideas to address a specific aim.

**Overall finding:** Australia's knowledge application does not currently match its strength in knowledge creation.

#### **Outputs**

Australia has innovative small and medium sized enterprises and some highly innovative sectors, however Australia's innovations are not that novel. In many sectors, innovations introduced by Australian businesses are new to the business only and reflect a low degree of novelty.

#### **Outcomes**

Australia's economic performance has been strong compared to other nations and Australia has performed well on a number of well-known indices of social outcomes, however there has been a slowdown in productivity growth.

(Source: [www.industry.gov.au](http://www.industry.gov.au))

## ARC ACTIVITIES

### July 2016

The ARC introduced a continuous application and assessment process under the Linkage Projects scheme. This is an initiative of the Government's NISA. [From 1 July 2016]

The ARC hosted a meeting for Directors of new Industrial Transformation Research Program Research Hubs and Training Centres. [29 July 2016]

### September 2016

The Minister for Education and Training, Senator Simon Birmingham (the Minister), announced the outcomes of the 2017 selection round of the ARC Centres of Excellence scheme. Nine outstanding Centres were awarded \$283.5 million in funding over seven years. [8 September 2016]

The ARC released the second volume of the *State of Australian University Research 2015–16 series—Institutional Insights*. The topics covered in this report are: ERA ratings, gender and the research workforce, open access, the volume of submitted outputs in ERA 2015 and the contribution to the national landscape. [13 September 2016]

### October 2016

A major research facility at the Australian Institute of Tropical Health and Medicine at James Cook University, partly funded by the ARC Special Research Initiative for Tropical Health and Medicine, was opened by the Premier of Queensland. [7 October 2016]

The ARC released an *ARC Statement of Support for Interdisciplinary Research*, outlining processes the ARC has in place to ensure equitable assessment and evaluation of interdisciplinary research under the NCGP and ERA. [14 October 2016]

The ARC hosted the inaugural Gender Equality in Research Laureate Forum, bringing together some of Australia's most pre-eminent researchers undertaking initiatives to promote gender equality in the research workforce. [25 October 2016]

The ARC hosted a meeting for new Australian Laureate Fellows. [26 October 2016]

### November 2016

The Minister announced the recipients of over 989 new research projects worth \$416.6 million across five schemes of the NCGP. [1 November 2016]

The Minister announced the EI assessment pilot. [21 November 2016]

## February 2017

The ARC released an *ARC Statement of Support and Action Plan for Aboriginal and Torres Strait Islander Researchers*. [14 February 2017]

The Minister and the Minister for Health, the Hon Greg Hunt MP, announced the recipients of the innovation grants for Type 1 diabetes, funded through the ARC Special Research Initiative for Type 1 Diabetes. [15 February 2017]

The Minister announced research projects awarded funding under the Linkage Projects scheme for funding commencing in 2016. [24 February 2017]

## April 2017

The ARC hosted the annual ARC Centre Director's Forum. The Forum brought together approximately 120 directors and business managers from ARC Centres of Excellence, Special Research Initiatives and Industrial Transformation Research Hubs and Training Centres. [26-27 April 2017]

The Minister announced research projects awarded funding under the Linkage Projects scheme for funding commencing in 2016. [5 April 2017]

## May 2017

The Minister announced research projects awarded funding under the Linkage Projects scheme for funding commencing in 2016. [31 May 2017]

## June 2017

The Minister announced the recipients of over 120 new research projects worth \$170.6 million across five NCGP schemes: Australian Laureate Fellowships 2017, Future Fellowships 2017, Industrial Transformation Research Hubs 2017, Industrial Transformation Training Centres 2017 and Linkage Projects 2016. [5 June 2017]

## PERFORMANCE SUMMARY

**Table 1: Summary of performance reported in the Annual Performance Statement (Section 3.1)**

<b>PURPOSE</b>	<b>The ARC's purpose is to grow knowledge and innovation for the benefit of the Australian community by funding the highest quality research, assessing the quality, engagement and impact of research and providing advice on research matters.</b>	
<b>KEY ACTIVITY 1</b>	Managing research funding schemes	
<b>PERFORMANCE CRITERION</b>	ARC research funding schemes contribute to the growth of knowledge and innovation in Australia by funding excellent, internationally competitive research projects, fellowships, awards, infrastructure, hubs and centres	
KEY PERFORMANCE INDICATOR	TARGET	RESULT
1.1 ARC funded research is relevant to Australia's needs and expectations	Maintain or increase the proportion of ARC-funded research that addresses an area of priority	Result: 67% Target: n/a; first year of measurement
1.2 ARC funded research builds Australia's research capacity and ability to respond to emerging priorities	Maintain or increase the proportion of research that supports research training and early career researchers	Result: 74% Target: n/a; first year of measurement
1.3 ARC funded research encourages collaboration among researchers within and beyond the research sector	Maintain or improve the proportion of partner organisations that indicate satisfaction with the research partnerships supported through ARC-funded research (Linkage Projects)	Result: 98% Target: Met
1.3 ARC funded research encourages collaboration among researchers within and beyond the research sector	Maintain or increase the extent ARC-funded research involves collaboration with partner organisations, including industry or other end users—Average number of partner organisations involved on a proposal (Linkage Projects)	Result: 2.4 Target: Met
1.3 ARC funded research encourages collaboration among researchers within and beyond the research sector	Maintain or increase the extent ARC-funded research involves collaboration with partner organisations, including industry or other end users—Ratio of total funding pledged by partner organisations to funding awarded by the ARC (Linkage Projects)	Result: 1.9 Target: Met
1.4 ARC funded research enhances international engagement	Maintain or increase the proportion of ARC funded research that supports international collaboration	Result: 71% Target: Met
1.5 ARC funded research produces outcomes that improve our understanding of the world and/or provide economic, environmental, social, health and/or cultural benefits to Australia	Examples of benefits arising from ARC funded research	Result: See Part 4 Target: Met

**KEY ACTIVITY 2** Excellence in Research for Australia**PERFORMANCE CRITERION** ARC research evaluation frameworks contribute to the growth of knowledge and innovation in Australia

KEY PERFORMANCE INDICATOR	TARGET	RESULT
2.1 ERA provides assurance of the quality of research in Australia	ERA reports and activities inform Australian Government policy	Target: Met
2.2 ERA encourages excellent, internationally competitive research	ERA reports and activities inform strategic planning at eligible Australian higher education institutions	Target: Met
2.2 ERA encourages excellent, internationally competitive research	Research performance of Australian higher education institutions improves	Target: n/a; not measured in 2016–17; next ERA evaluation will be undertaken in 2018
2.3 The Engagement and Impact assessment encourages impactful engagement within and beyond the research sector	Research engagement and impact (within and beyond the research sector) is benchmarked	Target: n/a; not measured in 2016–17; first EI assessment will be undertaken in 2018

**KEY ACTIVITY 3** Policy advice**PERFORMANCE CRITERION** ARC policy advice contributes to the growth of knowledge and innovation in Australia

KEY PERFORMANCE INDICATOR	TARGET	RESULT
3.1 ARC policy advice contributes to and responds to Australian Government policy development	ARC policy reflects government priorities and initiatives	Target: Met
3.2 ARC policy advice supports best practice research	ARC policies support the NCGP, particularly industry engagement and research workforce	Target: Met
3.3 ARC policy advice engages researchers, including international organisations and researchers	ARC policies reflect national and international policy developments	Target: Met



# PART 2 AUSTRALIAN RESEARCH COUNCIL OVERVIEW

<b>2.1 Role and functions</b>	<b>14</b>
<b>2.2 Organisational structure</b>	<b>16</b>
<b>2.3 Performance framework</b>	<b>17</b>

# 2.1 Role and functions

## LEGISLATION

The ARC is established under the *Australian Research Council Act 2001* (ARC Act). The ARC Act provides details in relation to:

- the functions of the ARC
- the establishment of designated committees by the responsible Minister
- the Chief Executive Officer (CEO) and ARC staff
- reporting requirements
- funding of research including the funding cap, funding assistance, funding rules and the ARC research endowment fund
- other miscellaneous requirements.

The ARC Act is normally updated annually through an amendment bill which allows continued funding under the National Competitive Grants Program (NCGP).

The Act was last amended in April 2017.

## ROLE AND FUNCTIONS

The ARC administers the NCGP; assesses the quality, engagement and impact of research; and advises the Australian Government on research matters.

### Funding the highest quality research

Through the NCGP, the ARC supports excellent research and research training across all disciplines. The NCGP comprises two programs—Discovery and Linkage—under which the ARC funds a range of complementary schemes that provide funding for basic and applied research, research training, research collaboration and infrastructure.

Funding is awarded on the basis of a competitive peer review process.

### Assessing the quality, engagement and impact of research

The ARC administers two evaluation frameworks to assess the quality, engagement and impact of research.

Excellence in Research for Australia (ERA) is an established research quality assessment framework that measures and reports on the quality of research conducted at Australia's higher education institutions. It provides a national stocktake of discipline-level areas of research strength and areas where there are opportunities for development across the full spectrum of research activity.

The ARC is also developing an Engagement and Impact (EI) assessment that will run as a companion exercise to the existing ERA framework. The EI assessment will assess the engagement of university researchers with end-users, and the benefits of Australia's investment in university research by showing how universities are translating their research into economic, social, environmental and other impacts.

## Providing advice on research matters

The ARC provides advice to the responsible Minister on matters related to the portfolio, including research and research training, research partnerships and the quality, engagement and impact of research in Australia.

## RESOURCES

In 2016–17, the ARC:

- managed a total estimated budget of \$777.9 million, of which approximately \$744.4 million was provided to support research
- had an average staffing level of 114 employees.

## STAKEHOLDERS

The ARC's key stakeholders are the Australian Government, Australian universities, partner organisations (including industry, government, not-for-profit, business and international education), publicly funded research agencies, research peak bodies, the global research sector, and Australian taxpayers.

Within the Government, the ARC works closely with a number of other agencies. It works collaboratively with the National Health and Medical Research Council (NHMRC) on a range of research matters including administration of competitive grants schemes, a review of the *Australian Code for the Responsible Conduct of Research* (2007), and administration of the Australian Research Integrity Committee. While the ARC funds research across all disciplines (with the exception of clinical medicine) the NHMRC provides funding for all areas of research relevant to human health and medicine.

The ARC also works closely with its portfolio agency, the Department of Education and Training, and the Department of Industry, Innovation and Science. Areas of common interest include implementation of the Government's *National Innovation and Science Agenda* initiatives, international engagement, and mechanisms of government support for building Australia's research capacity, for example, through funding for infrastructure, research training and collaboration.

## 2.2 Organisational structure

Figure 1: Structure of the Australian Research Council (at 30 June 2017)



## 2.3 Performance framework

The ARC's performance measurement framework is consistent with the requirements of the *Public Governance, Performance and Accountability Act 2013* (PGPA Act) and the Enhanced Commonwealth Performance Framework.

The ARC's framework ensures there is a clear line of sight between the performance criteria published in the ARC's Portfolio Budget Statements (PBS) and the performance information presented in the associated Corporate Plan and Annual Performance Statement (in the annual report).

Together, these three documents provide the ARC's complete performance story. In addition to the ARC's published performance information, the ARC's performance measurement framework is supported by internal planning, monitoring and reporting processes.

### PORTFOLIO BUDGET STATEMENTS

The ARC had one Outcome and four Programs in its 2016–17 PBS (Figure 2). The ARC reviewed its Outcome and Programs during 2016–17 and decided no changes were required.

**Figure 2: ARC Outcome and Programs**

OUTCOME 1		
Growth of knowledge and innovation through managing research funding schemes, research excellence and providing policy advice		
PROGRAM 1.1	PROGRAM 1.2	PROGRAM 1.3
Discovery—research and research training Administered expenses \$482,502,000	Linkage—cross-sector research partnerships Administered expenses \$264,428,000	Excellence in Research for Australia  Administered expenses \$4,348,000
PROGRAM 1.4		
ARC Departmental Departmental expenses \$26,424,000		

## CORPORATE PLAN

The ARC had one purpose in the *ARC Corporate Plan 2016–17 to 2019–20*:

*To grow Australia's knowledge and innovation by administering research funding schemes, administering research evaluation frameworks and providing advice on research matters.*

The ARC reviewed its purpose during 2016–17 and revised it to include the addition of the EI assessment to the ARC's responsibilities:

*To grow knowledge and innovation for the benefit of the Australian community by funding the highest quality research, assessing the quality, engagement and impact of research and providing advice on research matters.*

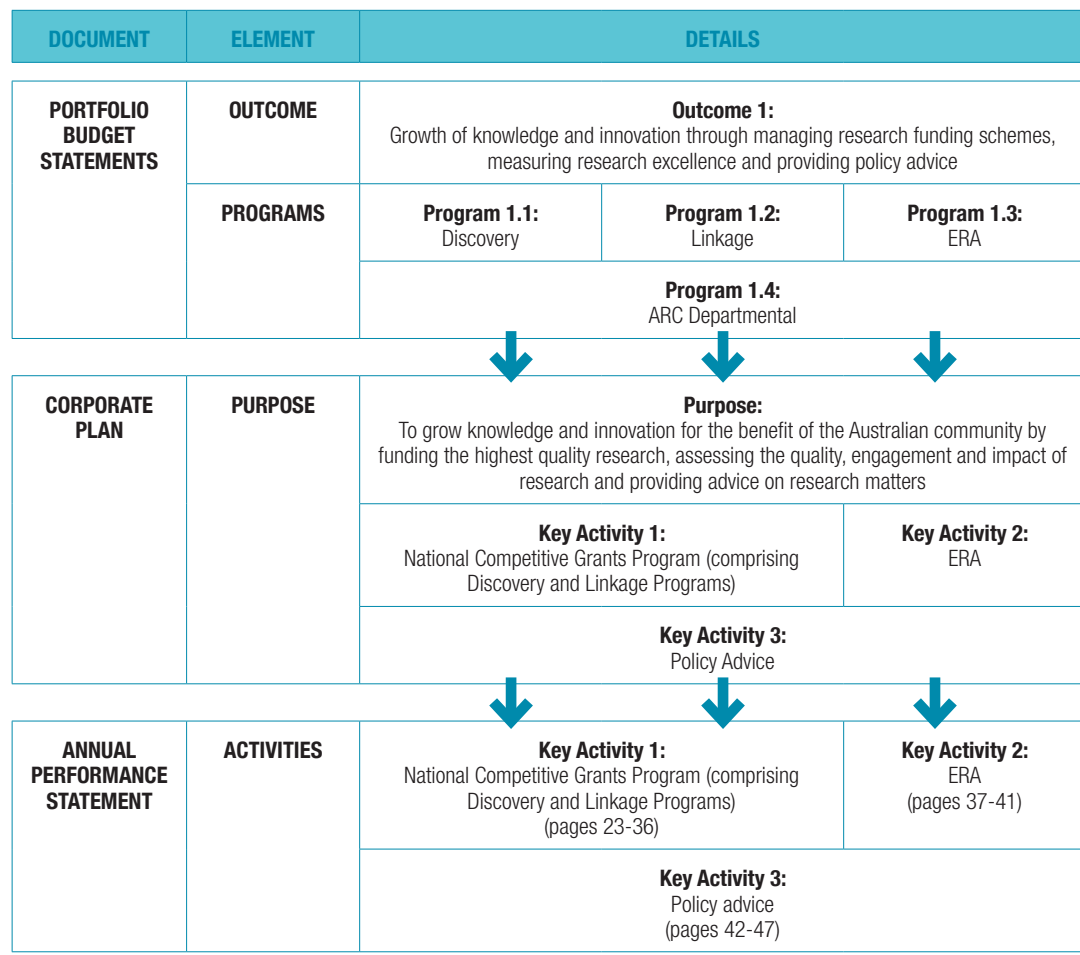
## ANNUAL PERFORMANCE STATEMENT

The Annual Performance Statement in Section 3.1 shows the ARC's achievements against its revised purpose from the Corporate Plan, and Outcome and Programs from the PBS.

## MAPPING BETWEEN ELEMENTS

A mapping between the elements of the ARC PBS, Corporate Plan and Annual Performance Statement is provided in Figure 3.

**Figure 3: Mapping the ARC Outcome and Programs to the ARC's Purpose**





# PART 3 REPORT ON PERFORMANCE

<b>3.1 Annual Performance Statement</b>	<b>22</b>
<hr/>	
<b>3.2 Financial performance</b>	<b>48</b>
<hr/>	

# 3.1 Annual Performance Statement

## INTRODUCTORY STATEMENT

I, as the accountable authority of the Australian Research Council (ARC), present the 2016–17 annual performance statement of the ARC, as required under paragraph 39(1)(a) of the *Public Governance, Performance and Accountability Act 2013* (PGPA Act) and the *Australian Research Council Act 2001*. In my opinion, these annual performance statements are based on properly maintained records, accurately reflect the performance of the entity, and comply with subsection 39(2) of the PGPA Act.



**Professor Sue Thomas**  
Chief Executive Officer

## PURPOSE

The ARC's purpose is to grow knowledge and innovation for the benefit of the Australian community by funding the highest quality research, assessing the quality, engagement and impact of research and providing advice on research matters (Outcome 1).

A statement is provided for each of the three key activities that support the ARC's purpose as follows:

- Key Activity 1: Funding the highest quality research
- Key Activity 2: Assessing the quality, engagement and impact of research
- Key Activity 3: Providing advice on research matters.

The performance statement for each activity comprises:

- a **description** of the activity
- a description of the key **deliverables**
- a description of performance against each indicator including a description of **why it is important**, the **result(s)**, an **analysis of the result(s)** and **additional context** if appropriate
- a **performance summary** or overall analysis of performance against the activity.

Additional explanatory notes are provided for Key Activity 1: Funding the highest quality research (page 24).

## KEY ACTIVITY 1: FUNDING THE HIGHEST QUALITY RESEARCH

### Description

The ARC administers the National Competitive Grants Program (NCGP). It comprises two programs, Discovery and Linkage, which consist of a range of research funding schemes.

In 2016–17, the NCGP comprised the following schemes (see Appendix 1 for description):

- **Discovery Program:** Australian Laureate Fellowships; Discovery Early Career Researcher Award; Discovery Indigenous; Discovery Projects; and Future Fellowships
- **Linkage Program:** ARC Centres of Excellence; Industrial Transformation Research Hubs; Industrial Transformation Training Centres; Linkage Infrastructure, Equipment and Facilities; Linkage Learned Academies Special Projects; Linkage Projects; and Special Research Initiatives.

By supporting excellent internationally competitive research through these schemes, the ARC aims to deliver outcomes of benefit to Australia and to build Australia's research capacity.

### Deliverables

The key deliverables for the NCGP, as identified in the *Portfolio Budget Statements (PBS) 2016–17*, are (PBS pages 169 and 172):

- administering the Discovery Program funding schemes which provide funding to eligible administering organisations for excellent, internationally competitive research projects, fellowships and awards
- administering the Linkage Program funding schemes which provide funding to eligible administering organisations for excellent, internationally competitive research projects, infrastructure, hubs and centres
- informing policy on research and research training, and cross sector research partnerships.

In 2016–17, the ARC:

- conducted selection processes which considered 6412 proposals for NCGP funding and awarded 1346 new grants, involving 3094 researchers, worth \$906.2 million
- administered 4996 new and ongoing grants under the NCGP, providing over \$730 million in grant payments to administering organisations (based on planned allocations recorded at time of grant award)
- undertook a range of NCGP-related policy development activities (see pages 42-47 for further information).

## Explanatory notes

The measures identified for Key Activity 1 provide an indication of the NCGP's contribution to delivering outcomes of benefit to Australia and building Australia's research capacity.

The measures assess outputs and/or outcomes at different stages of the grant lifecycle including at the time proposals are submitted to the ARC, successful research projects are announced, successful research projects are completed, and in the years following completion of the project.

Several points should be considered in reading this section.

- Some measures relate to matters which are outside the ARC's influence, potentially impacting on the ARC's ability to achieve these targets. Factors include economic conditions affecting the ability of partner organisations to make financial contributions to research projects, and the longer-term realisation of research benefits.
- Measuring performance against a target of maintaining or increasing certain performance levels is done in the context of multiple year trends rather than single year results.

**Readers should note that figures reported in this section are grants awarded and do not directly reflect financial statement information.**

### **Data notes**

Readers should also note the following when reading this section:

- Data for the Discovery and Linkage Programs includes the outcomes of scheme rounds with funding commencing in 2016–17 unless otherwise stated. Those scheme rounds are:

#### **Discovery Program:**

- Australian Laureate Fellowships (2016), Discovery Early Career Researcher Award (2017), Discovery Indigenous (2017), Discovery Projects (2017), and Future Fellowships (2016) schemes

#### **Linkage Program:**

- ARC Centres of Excellence (2017), Industrial Transformation Research Hubs (2017), Industrial Transformation Training Centres (2016), Linkage Infrastructure, Equipment and Facilities (2017), and Linkage Projects (2016) schemes.
- Data and information from final reports are drawn from final reports which have been approved by the ARC for research projects commencing in 2011 (noting that most ARC projects involve multi-year funding).
- Due to a change in data collection protocols (that is, from final reports being required six months after completion of the research project to 12 months after completion of the research project), this is the same baseline year that was used in the *ARC Annual Report 2015–16*.

## ARC funded research is relevant to Australia's needs and expectations

### Why is this important?

Through identification of priority areas the Australian Government aims to focus research in areas that address challenges facing Australia. The ARC contributes to this aim by funding research in priority areas under the NCGP.

### Performance

KPI 1.1 ARC-funded research is relevant to Australia's needs and expectations				
<b>SOURCE</b>	CP 2016–17 page 9; PBS 2016–17 page 170,174			
<b>TARGET</b>	Maintain or increase the proportion of ARC-funded research that addresses an area of research priority			
<b>COLLECTED</b>	From proposal forms			
RESULTS	2016–17	2015–16	2014–15	2013–14
<b>NCGP</b>	67% Target n/a; first year of Science and Research Priorities	84%	84%	93%
<b>DISCOVERY</b>	60% Target n/a; as above	80%	82%	92%
<b>LINKAGE</b>	84% Target n/a; as above	96%	91%	98%

### Analysis of results

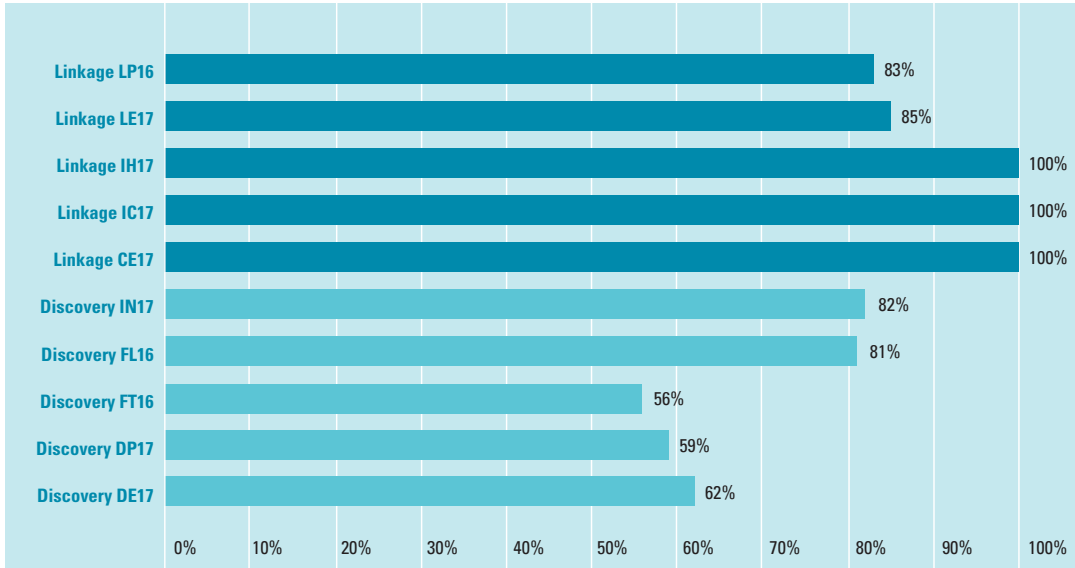
Approximately two-thirds of research projects awarded in 2016–17 involved research relevant to the Government's nine Science and Research Priority areas: Food, Soil and Water, Transport, Cybersecurity, Energy, Resources, Advanced Manufacturing, Environmental Change and Health.

The lower result recorded for the Discovery Program (60 per cent) reflects the different objectives of the Discovery and Linkage Programs. The Discovery Program is aimed at supporting fundamental research, while the Linkage Program has a greater focus on supporting research partnerships between universities and organisations that will use the research conducted by universities.

Performance against the target cannot be measured in 2016–17 because different Government priorities were in place in different years. In 2016–17, the ARC measured against Science and Research Priority areas, in 2015–16 and 2014–15 against Strategic Research Priority areas and in 2013–14 against National Research Priority areas (see glossary for definitions).

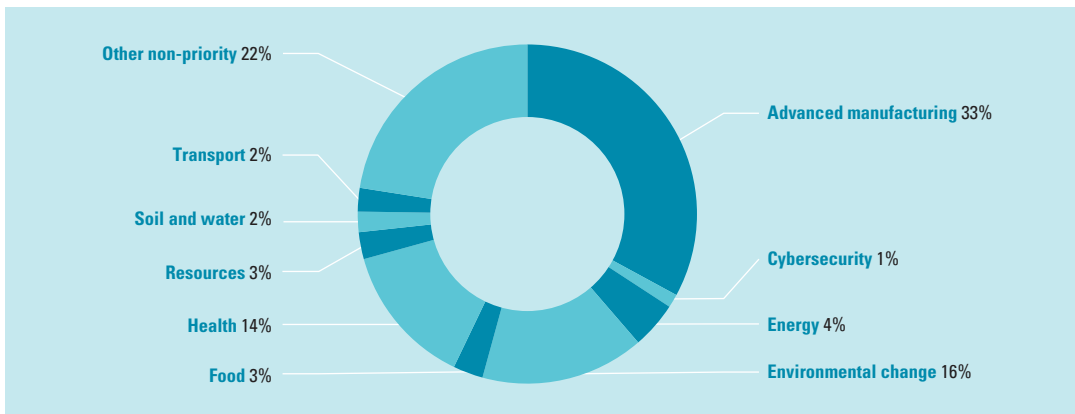
The proportion of new research projects in the Science and Research Priority areas ranged from 56 per cent under the Future Fellowships scheme to 100 per cent under the ARC Centres of Excellence, Industrial Transformation Research Hubs and Industrial Transformation Training Centres schemes (Figure 4).

**Figure 4: Proportion of new projects that involve research in Science and Research Priority areas by scheme, new grants commencing in 2016–17**



Of total funding awarded to new projects commencing in 2016–17, the priority areas allocated the largest proportions of funding were Advanced Manufacturing (33 per cent), Environmental Change (16 per cent), and Health (14 per cent) (Figure 5).

**Figure 5: ARC funding by Science and Research Priority area, new grants commencing in 2016–17**



### Additional context

All researchers applying for ARC funding are required to identify whether their research falls within a Science and Research Priority area. While funding is not specifically directed to these areas, most schemes ask assessors to consider whether the research will address or has the potential to address these areas.

In 2016–17, the ARC supported a number of priority areas in addition to the Science and Research Priority areas. It:

- funded research in identified Industrial Transformation Priority areas through the Industrial Transformation Research Program. In 2016–17, the Industrial Transformation Priority areas comprised Advanced Manufacturing; Food and Agribusiness; Oil, Gas and Energy Resources; Mining Equipment, Technology and Services; and Medical Technologies and Pharmaceuticals
- provided ongoing funding for a number of initiatives in priority areas which commenced in previous years including: the National Indigenous Research and Knowledges Network, the Special Research Initiative for the Antarctic Gateway, the Special Research Initiative for Type 1 Juvenile Diabetes, the Special Research Initiative for the Science of Learning, and the Special Research Initiative for Tropical Health and Medicine.

## ARC-funded research builds Australia's research capacity and ability to respond to emerging priorities

### Why is this important?

Research performance is critically dependent on access to highly qualified and skilled personnel. The ARC's aim is to foster research training and career development opportunities through its funding schemes, including opportunities under its Linkage Program for researchers to spend time in industry organisations.

### Performance

KPI 1.2	ARC-funded research builds Australia's research capacity and ability to respond to emerging priorities			
<b>SOURCE</b>	CP 2016–17 page 9; PBS 2016–17 page 170,174			
<b>TARGET</b>	Maintain or increase the proportion of NCGP research that supports research training and early career researchers			
<b>COLLECTED</b>	From proposal forms			
RESULTS	2016–17	2015–16	2014–15	2013–14
<b>NCGP</b>	74% Target n/a; first year of measure	n/a	n/a	n/a
<b>DISCOVERY</b>	92% Target n/a; as above	n/a	n/a	n/a
<b>LINKAGE</b>	56% Target n/a; as above	n/a	n/a	n/a

## Analysis of results

Approximately three-quarters of NCGP projects commencing in 2016–17 involved research training and/or early-career researchers (where the ARC defines an early career researcher as a researcher within five years of award of a PhD). The result for the Discovery Program is higher than the Linkage Program as it includes the Discovery Early Career Researcher Award scheme, which is specifically targeted at supporting early-career researchers.

Performance against the target in 2016–17 cannot be assessed. This is the first year this measure has been reported against and data for research training has been collected in an accessible format.

## Additional context

In 2016–17, the ARC supported a range of research training and career development activities. It:

- provided direct support through:
  - awards and fellowships to individuals at all career stages
  - the Industrial Transformation Training Centres scheme, which is specifically targeted at funding Higher Degree by Research (HDR) students conducting research in Industrial Transformation Priority areas
  - funding for postgraduate and postdoctoral researchers to work in teams with the world-class researchers awarded Australian Laureate Fellowships
- provided indirect support through other ARC-funded research projects, including:
  - Discovery Projects and Linkage Projects
  - ARC Centres of Excellence.

In addition, the ARC continued to:

- encourage the best researchers to undertake research at Australian universities by making all ARC fellowship and award schemes open to researchers whether they are already located in Australia or overseas (including returning Australians)
- include Research Opportunity and Performance Evidence (ROPE) as a selection criterion under all its funding schemes. ROPE requires assessors to look at opportunities available to a researcher when considering their track record
- administer the Discovery Indigenous scheme, which supports research programs led by Aboriginal and Torres Strait Islander researchers and aims to build the research capacity of HDR students and early career researchers
- encourage the participation of women through a number of targeted mechanisms.

Of the 3094 individual researchers supported on new NCGP grants commencing in 2016–17:

- 27 per cent were female researchers
- one per cent were Aboriginal and Torres Strait Islander researchers
- 12 per cent were early-career researchers
- ten per cent were recipients of fellowships and awards.

## ARC-funded research encourages collaboration among researchers within and beyond the research sector

### Why is this important?

Research is a collaborative activity with successful researchers and research organisations working together, partnering and networking to generate multiplier effects. The ARC's aim in supporting engagement between universities and other sectors, is to maximise opportunities to build the scale and focus of research involving end-users, potentially resulting in direct benefits to the Australian community.

### Performance

<b>KPI 1.3</b>		<b>ARC-funded research encourages collaboration among researchers within and beyond the research sector</b>			
<b>SOURCE</b>	CP 2016–17 page 9; PBS 2016–17 pages 170,174				
<b>TARGET</b>	Maintain or improve proportion of partner organisations (stakeholders) that are satisfied with the research partnerships supported through ARC-funded research (Linkage Projects)				
<b>COLLECTED</b>	From final report forms				
<b>RESULTS</b>	<b>2016–17</b>	<b>2015–16</b>	<b>2014–15</b>	<b>2013–14</b>	
<b>LINKAGE</b>	98% Target met	98%	99%	98%	
<b>TARGET</b>	Maintain or increase the extent ARC-funded research involves collaboration with partner organisations, including industry or other end users—Average number of partner organisations involved on a proposal (Linkage Projects)				
<b>COLLECTED</b>	From proposal forms				
<b>RESULTS</b>	<b>2016–17</b>	<b>2015–16</b>	<b>2014–15</b>	<b>2013–14</b>	
<b>LINKAGE</b>	2.4 Target met	2.3	1.9	2.3	
<b>TARGET</b>	Maintain or increase the extent ARC-funded research involves collaboration with partner organisations, including industry or other end users—Ratio of total funding (cash and in-kind) pledged by partner organisations to funding awarded by ARC (Linkage Projects)				
<b>COLLECTED</b>	From proposal forms				
<b>RESULTS</b>	<b>2016–17</b>	<b>2015–16</b>	<b>2014–15</b>	<b>2013–14</b>	
<b>LINKAGE</b>	1.9 Target met	1.7	1.9	1.8	

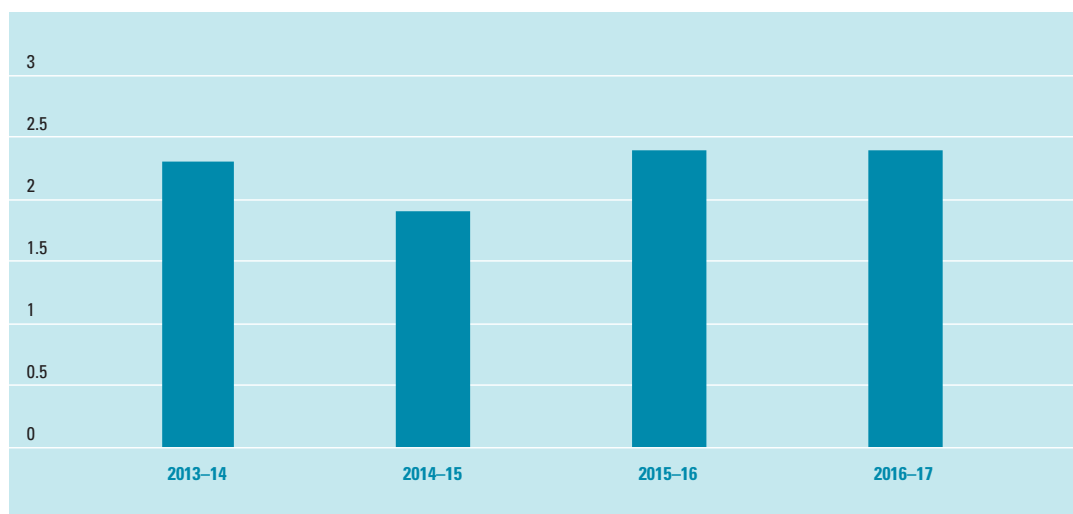
### Analysis of results—Satisfaction of partner organisations

A partner organisation's commitment of funding and other resources to a research project indicates an expectation of gain from that investment. Feedback from partner organisations analysed during 2016–17 indicated that a vast majority of partners (98 per cent) found that the collaborative research had been either 'very beneficial' or 'beneficial' to their organisation.

### Analysis of results—Involvement of partner organisations

The average number of partner organisations involved in Linkage Program grants is an indicator of how Linkage schemes are encouraging collaboration between university and non-university researchers. In 2016–17, results under the Linkage Projects scheme were similar to results in previous years (Figure 6). Overall, the results continue to exceed the minimum requirement of one Australian partner organisation in all Linkage Program schemes.

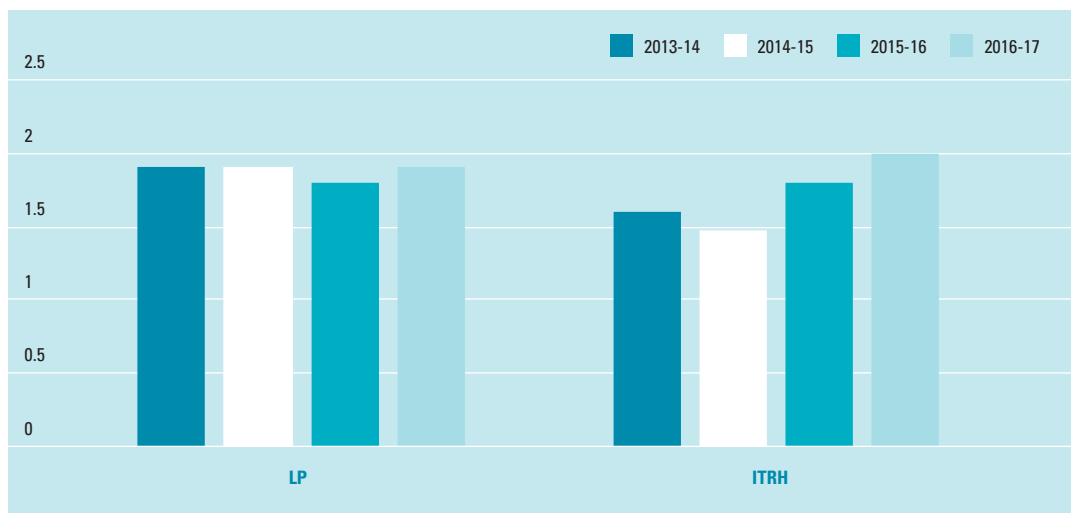
**Figure 6:** Linkage Projects scheme, average number of partner organisations per ARC-funded research project, 2013–14 to 2016–17



### Analysis of results—Contribution of partner organisations

Under both the Linkage Projects and Industrial Transformation Research Hubs schemes, the combined cash and in-kind contributions pledged by partner organisations are required to at least match the funding sought from the ARC. In 2016–17, this requirement was exceeded in both schemes. For the Linkage Projects scheme, every ARC dollar attracted \$1.92 from partner organisations, while for research hubs every ARC dollar attracted \$2.00 from partner organisations (Figure 7).

**Figure 7: Ratio of funding pledged by partner organisations to funding awarded by the ARC, 2013–14 to 2016–17**



### Additional context

Key funding schemes of the Linkage Program—Linkage Projects, Industrial Transformation Research Hubs and Industrial Transformation Training Centres—are specifically aimed at supporting collaborative research between universities and end-users, including industry. The Linkage Projects scheme involves a range of end-users including government, not-for-profit as well as industry, while the Industrial Transformation Research Program is more tightly focused on industry linkages (by virtue of the priorities supported by the scheme).

Following recent Government reviews the ARC has made a number of changes aimed at boosting collaboration between researchers and end-users. In 2016–17, the ARC:

- introduced a continuous application process for the Linkage Projects scheme on 1 July 2016. This measure was announced and implemented under the National Innovation and Science Agenda (NISA).
- made businesses with less than 20 employees exempt from the requirement for partner organisations to provide cash contributions under the Linkage Projects scheme. This recommendation was implemented with the release of new Linkage Projects funding rules which commenced on 1 January 2017.

Previously the ARC had also:

- introduced a new objective for the Industrial Transformation Research Program to ‘drive growth, productivity and competitiveness by linking key growth sectors’
- introduced a revised objective under the Linkage Projects scheme emphasising opportunities to obtain commercial benefits from research
- strengthened selection criteria for the schemes under the Linkage Program to focus on collaborative links with industry and commercial outcomes.

## ARC-funded research enhances international engagement

### *Why is this important?*

Research is a global activity with researchers seeking access to the best partners and facilities worldwide. The ARC's aim in supporting international research collaboration is to maximise Australia's contribution to, and benefits from, international research collaborations, partnerships, developments and policy. Benefits include access to ideas and resources.

### *Performance*

<b>KPI 1.4</b>		<b>ARC-funded research enhances international engagement</b>			
<b>SOURCE</b>	CP 2016–17 page 9; PBS 2016–17 pages 170,174				
<b>TARGET</b>	Maintain or increase the proportion of ARC-funded research that supports international collaboration (against a four year average)				
<b>COLLECTED</b>	From proposal forms (instances of international collaboration)				
<b>RESULTS</b>	<b>2016–17</b>	<b>2015–16</b>	<b>2014–15</b>	<b>2013–14</b>	
<b>NGGP</b>	71% Target met	69%	65%	60%	
<b>DISCOVERY</b>	77% Target met	74%	69%	65%	
<b>LINKAGE</b>	55% Target met	56%	50%	46%	

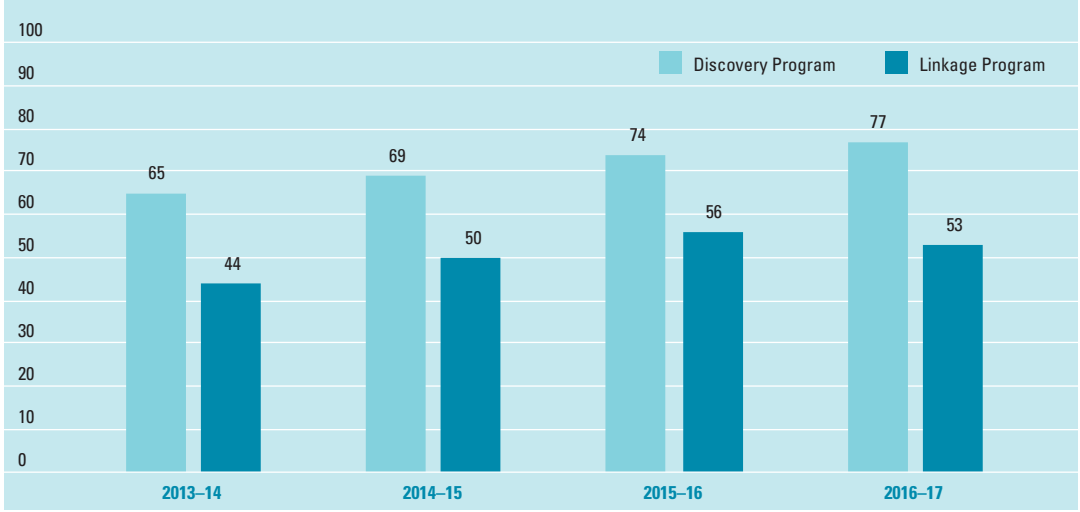
### **Analysis of results**

Over half of research projects funded under the Linkage Program and three-quarters under the Discovery Program involved collaboration with researchers or research groups overseas.

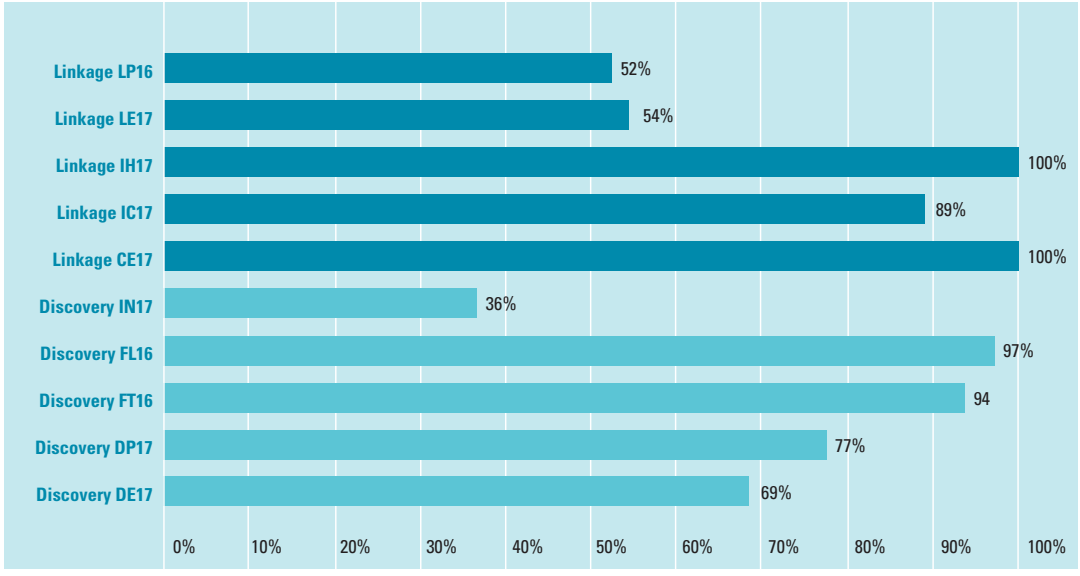
The proportion of ARC-funded research projects involving international collaboration has slowly increased over the last four years under the Discovery Program with figures for the Linkage Program dropping slightly in 2016–17 (Figure 8). The ARC encourages researchers to build international links by allowing project funding to be used for international travel and fieldwork. The mechanisms of support have not changed significantly in the past four years, indicating that the general upward trend of results for the Discovery Program represents a real change in levels of collaboration.

The proportion of research projects involving international collaboration range from 100 per cent under the ARC Centres of Excellence and Industrial Transformation Research Hubs schemes to 36 per cent under the Discovery Indigenous scheme (Figure 9). The most common mechanism of collaboration proposed is attending a workshop or conference (proposed by 70 per cent of projects), followed by short-term travel and short-term hosting of partner investigators.

**Figure 8: Proportion of ARC-funded research projects involving international collaboration, 2013–14 to 2016–17**



**Figure 9: Proportion of ARC-funded research projects involving international collaboration by scheme, new grants commencing in 2016–17**



### **Additional context**

In pursuing this result in 2016–17, the ARC:

- identified international travel costs as eligible budget items under most NCGP funding schemes
- identified overseas organisations as eligible partner organisations under the Linkage Program schemes
- awarded Discovery International Awards under the Discovery Projects scheme to increase opportunities for collaboration between researchers, research teams and/or research centres in Australia and overseas
- continued to foster the cooperative use of international facilities under the Linkage Infrastructure, Equipment and Facilities scheme.

In addition to the results against KPI 1.4:

- approximately 29 per cent of research projects awarded funding under the Linkage Projects scheme involved international organisations. In total 121 international organisations were nominated as partner organisations on Linkage Projects grants commencing in 2016–17
- 135 Discovery International Awards were awarded under the Discovery Projects scheme for funding commencing in 2017
- a number of projects awarded funding under the Linkage Infrastructure, Equipment and Facilities scheme involved international collaboration:
  - Australian membership of the International Ocean Discovery Program, the world's largest collaborative research program in earth and ocean sciences
  - equipment for international collaboration in the next-generation gravitational wave detector
  - coherent laser links for space applications to enable continuing leadership and involvement in international space projects.

## **ARC funded research produces outcomes that improve our understanding of the world; and/or provide economic, environmental, social, health and/or cultural benefits to Australia**

### ***Why is this important?***

Advances in knowledge and innovation make a significant contribution to Australia's economy as well as to the health and prosperity of the Australian community.

## Performance

<b>KPI 1.5</b>	<b>ARC-funded research produces outcomes that improve our understanding of the world and/or provide economic, environmental, social, health and/or cultural benefits to Australia</b>			
<b>SOURCE</b>	CP 2016–17 page 9; PBS 2016–17 pages 170,174			
<b>TARGET</b>	Examples of benefits arising from ARC funded research			
<b>COLLECTED</b>	From media reports			
<b>RESULTS</b>	<b>2016–17</b>	<b>2015–16</b>	<b>2014–15</b>	<b>2013–14</b>
<b>DISCOVERY</b>	Target met	Met	Met	Met
<b>LINKAGE</b>	Target met	Met	Met	Met

### Analysis of results

The case studies in Part 4 demonstrate the breadth of outcomes resulting from ARC-funded research. The case studies outline research which is:

- creating high performance and low-cost energy storage solutions for a more sustainable future (case study 1)
- supporting economic development in regional and remote areas through a better understanding of the role of cultural and creative industries (case study 2)
- developing a new generation of sensors to detect and diagnose disease (case study 3)
- bringing about significant energy savings in buildings (case study 4)
- helping record and recognise the contributions of Aboriginal and Torres Strait Islander veterans and ex-service personnel (case study 5)
- providing infrastructure and technical expertise that will enable Australia to become a world leader in an exciting new field of modern physics (case study 6)
- expanding our understanding of significant historical events and helping to inform better protection and management of Australia’s maritime history and heritage (case study 7)
- producing technology that will reduce pollution from vehicle exhaust (case study 8)
- establishing Australia as a leader in innovation through the development of new technologies that recognise patterns in big data (case study 9)
- using DNA from Neanderthals to better understand today’s diseases (case study 10)
- collaborating internationally to create new materials that can be used in industrial processes (case study 11)
- producing knowledge to safeguard the future of an iconic Australian species—the platypus (case study 12)
- generating new insights into the connections between plate tectonics, past ocean chemistry and the evolution and extinction of life on Earth (case study 13)

- developing innovative products that can help perforated eardrums to heal (case study 14)
- helping farmers to better manage their crops and increase their farm productivity using technology (case study 15).

During the year the ARC continued to release information about ARC research on its website. It also published a booklet titled *Making a difference: Outcomes of ARC-supported research*.

### **Additional context**

External acknowledgement is considered to be a proxy indicator of the excellence of the researchers supported by the ARC. ARC-funded researchers have a strong record of winning prizes and awards and this continued in 2016–17 (see Appendix 3 for details).

## **Performance summary**

There were no changes in the ARC’s activities, organisational capability or environment that impacted significantly on its performance in delivering Key Activity 1: Managing research funding schemes.

As reported in last year’s annual report a key development during 2015–16 was the announcement that the ARC would be responsible for implementing a continuous application and assessment process under the Linkage Projects scheme from 1 July 2016. As a result of this initiative the ARC changed the way it conducts selection meetings for the Linkage Projects scheme, using videoconferencing arrangements rather than face-to-face meetings.

The ARC also continued its focus on efficient and effective delivery of the NCGP. In pursuing this objective in 2016–17, the ARC:

- continued to pursue best practice peer review processes (including addressing conflicts of interest, College of Experts, appeals process)
- reviewed the NCGP funding rules
- liaised regularly with institutions (including through regular information sessions and visits).

In March 2017, the ARC surveyed the higher education sector on the clarity of the Funding Rules and Funding Agreements, as well as general satisfaction with services provided by the ARC. The ARC received over 100 responses to the survey and the majority indicated satisfaction with the clarity of information within the Funding Rules and Agreements and the level of service provided by the ARC.

## KEY ACTIVITY 2: ASSESSING THE QUALITY, ENGAGEMENT AND IMPACT OF RESEARCH

### Description

Excellence in Research for Australia (ERA) assesses research quality by discipline at Australian higher education institutions. Evaluated against international benchmarks, ERA identifies excellence across the full spectrum of research activities giving a rating between five, well above world standard, and one, well below world standard. ERA aims to improve Australia's research capabilities and inform government policy.

In 2016–17, the ARC continued to develop a new Engagement and Impact (EI) assessment framework by testing possible methodologies through a pilot exercise. In 2018, the full assessment will run in conjunction with ERA to assess the engagement of university researchers with end-users. The assessment will also examine how universities are translating their research into economic, social, environmental, cultural and other impacts.

Together the frameworks:

- provide a unique, evidence-based resource to inform Australian Government research policy and the strategic direction of higher education institutions
- encourage researchers to produce high-quality research with real-world benefits.

### Deliverables

The key deliverables for ERA, as identified in the PBS 2016–17 are:

- administering an evaluation framework to measure and report on the quality of research conducted at Australian higher education institutions
- developing a framework to measure engagement and impact of research conducted at Australian higher education institutions
- informing strategic policy advice on research quality, engagement and impact.

In 2016–17, the ARC:

- released *State of Australian University Research 2015–16: Volume 2 Institutional Insights*
- conducted the EI pilot submission and assessment phase
- continued to provide strategic policy advice on a wide range of research matters relating to the evaluation of research quality.

## ERA provides assurance of the quality of research in Australia

### *Why is this important?*

Providing assurance of the quality of research enables strategic planning by universities and the Government. This strategic planning further strengthens Australia's research capabilities. It provides important information to prospective students and researchers about the performance of disciplines at individual universities and helps promote Australia's research strengths on the world stage.

### *Performance*

KPI 2.1 Evidence that ERA provides assurance of the quality of research in Australia				
SOURCE		CP 2016–17 page 10; PBS 2016–17 page 176		
TARGET		ERA reports and activities inform Australian Government policy		
RESULTS	2016–17	2015–16	2014–15	2013–14
	Target met	Met	Met	Met

### *Analysis of results*

The three rounds of ERA conducted to date have established a data collection of the research activity and performance of Australia's universities that spans over a decade. The dataset is a unique and valuable resource for a range of stakeholders. The ARC regularly responds to requests for information about the nature, extent and location of research strengths in particular disciplines. These requests come from individual researchers, postgraduates, government agencies and entrepreneurs.

## ERA encourages excellent, internationally competitive research

### *Why is this important?*

Improvements in research quality lead to a better return on investment in research, and improve the social rate of return of research<sup>1</sup>. The ARC's aim is to ensure these outcomes can be realised for Australia through the conduct of a best practice evaluation of the quality of research at Australian higher education institutions.

1 *Benefits Realisation Review of Excellence in Research for Australia*, September 2013, ACIL Allen Consulting

## Performance

<b>KPI 2.2</b>		<b>ERA encourages excellent, internationally competitive research</b>			
<b>SOURCE</b>	CP 2016–17 page 10; PBS 2016–17 page 176				
<b>TARGET</b>	ERA reports and activities inform strategic planning at eligible Australian higher education institutions				
<b>RESULTS</b>	<b>2016–17</b>	<b>2015–16</b>	<b>2014–15</b>	<b>2013–14</b>	
	Target met	Met	Met	Met	
<b>TARGET</b>	Research performance of Australian higher education institutions improves				
<b>RESULTS</b>	<b>2016–17</b>	<b>2015–16</b>	<b>2014–15</b>	<b>2013–14</b>	
	Not measured	Met	Not measured	Not measured	

### Analysis of results—Informs strategic planning activities

A survey of the websites of the 41 ERA participating universities revealed that the majority (approximately 54 per cent) of institutions referenced ERA in their strategic planning documents and/or in their annual report of performance. In addition, more than 90 per cent made references to ERA and their performance on their website.

One of the aims of ERA is to improve Australia's research capacity and it is evident that Australian universities are using ERA data to support their strategic planning activities. Promotional material of universities frequently emphasise ERA outcomes as an indicator of current performance and/or to set targets in relation to future performance. These documents compare performance relative to both international and national benchmarks. They demonstrate that Australian universities are using ERA data to:

- build on existing and emerging research strengths
- address weaknesses and/or gaps in their research capacity
- identify opportunities for cross disciplinary research and collaboration
- benchmark performance against national strengths and weaknesses
- develop capacity in areas of strategic priority to their institutional missions, including aligning capacity with undergraduate teaching profile, research training load, and the concerns of local communities and other key stakeholders.

### Analysis of results—Research performance improves

Performance against this target cannot be measured in 2016–17 because an ERA evaluation was not conducted.

ERA is conducted every three years with the most recent round being in 2015 and the next round to take place in 2018. The outcomes of ERA 2015 showed that the quality of research conducted by eligible Australian higher education institutions had improved since the previous evaluation.

## The Engagement and Impact assessment encourages impactful engagement within and beyond the research sector

### *Why is this important?*

Existing systems of research evaluation show that the transparent reporting of university performance drives institutions to modify and improve their behaviour. It is anticipated that the assessment and reporting of a university's performance in both research engagement and impact will lead to greater collaboration between universities and research end-users. It is also expected to encourage improved performance in the translation and commercialisation of research. This in turn will deliver economic and social benefits and maximise the value of Australia's public investment in research.

### *Performance*

<b>KPI 2.3</b>		<b>The Engagement and Impact assessment encourages impactful engagement within and beyond the research sector</b>		
<b>SOURCE</b>	CP 2016–17 page 10; PBS 2016–17 page 176			
<b>TARGET</b>	Research engagement and impact (within and beyond the research sector) is benchmarked and improves			
<b>RESULTS</b>	<b>2016–17</b>	<b>2015–16</b>	<b>2014–15</b>	<b>2013–14</b>
	Not measured; first round to be conducted in 2018	n/a	n/a	n/a

### *Analysis of results*

Performance against this target cannot be measured in 2016–17 because an EI assessment was not conducted.

In 2016–17, the ARC developed a methodology for the EI assessment and tested it in a pilot exercise. In November 2016, the ARC invited universities to participate in the pilot and nominate researchers and end-users for the pilot assessment panels. The pilot tested the methodology for engagement based on engagement indicators and narratives submitted by universities. The pilot also tested the methodology for impact based on impact studies submitted by universities. The pilot submission and assessment phases took place in May–June 2017, with almost all universities participating in the pilot.

Recognising the importance of Aboriginal and Torres Strait Islander research, the pilot also tested the inclusion of research impact studies in this area. The development of the appropriate methodology to recognise the engagement and impact of Aboriginal and Torres Strait Islander research is in its early stages. The ARC has commenced consultations with representatives of the Australian Indigenous research community and this will continue to be an important and integral part of development and implementation processes. Feedback received by the ARC so far indicates that a narrative approach is the most appropriate method to convey information and data on Aboriginal and Torres Strait Islander research particularly regarding engagement and impact. Information obtained from the pilot will be used to develop an approach for incorporating Aboriginal and Torres Strait Islander research in the EI assessment in 2018 and beyond. It will be informed by further consultations with relevant stakeholders.

## Performance summary

There were no changes in the ARC's activities, organisational capability or environment that impacted on its performance in delivering Key Activity 2: Measuring research excellence.

In 2016–17, the ARC worked on preparations for EI and ERA 2018. This included:

- recruiting and training panel members for the pilot EI assessment, and receiving submissions from universities participating in the pilot
- continuing its preparation for the upcoming 2018 ERA round, reviewing the guidance information for the 2018 submission process and seeking input from universities for updates to the ERA 2018 Journal List.

Stakeholder engagement continued to be an important input to the ARC's processes, including for developing the EI methodology and preparing for the next ERA evaluation.

## KEY ACTIVITY 3: PROVIDING ADVICE ON RESEARCH MATTERS

### Description

The ARC's commitment and contribution to policy development plays an essential role in facilitating excellent research outcomes for Australia. In doing so the ARC takes an active and collegiate approach to identifying and responding to emerging issues and challenges relevant to Australia's research sector.

Through policy development and advice, the ARC aims to:

- reflect current Government priorities and initiatives in its operations
- contribute to the development of national research and innovation policy
- provide advice on research matters to the Government
- support the effective delivery of ARC programs.

### Deliverables

As identified in the PBS 2016–17, policy advice underpins the ARC's delivery of the NCGP, ERA and EI (PBS pages 158-166).

In 2016–17, the ARC:

- reviewed research-related policies and consulted with stakeholders regarding potential changes
- worked with the National Health and Medical Research Council (NHMRC) and Universities Australia to revise the *Australian Code for the Responsible Conduct of Research*
- participated in policy development across portfolios, including access to research outcomes
- continued to look for ways to increase the efficiency, comprehensiveness and timeliness of data gathering and reporting
- continued to monitor emerging issues relevant to the research sector
- monitored, incorporated and contributed to international developments in research.

## ARC policy advice contributes to and responds to Australian Government policy development

### Why is this important?

The ARC's aim is to develop and implement policies and policy advice regarding research that supports achieving outcomes of benefit to Australia.

### Performance

KPI 3.1		ARC policy advice contributes to and responds to Australian Government policy development		
SOURCE		CP 2016–17, page 11		
TARGET		ARC policy reflects government priorities and initiatives		
RESULTS	2016–17	2015–16	2014–15	2013–14
	Target met	Met	Met	Met

### Analysis of results

During 2016–17, the ARC:

- implemented initiatives from NISA and other reviews
- continued to implement the Government's Science and Research Priority areas through all NCGP funding schemes, and Industrial Research Transformation Priority areas through the Industrial Transformation Research Program
- participated in a range of national innovation policy initiatives and discussions including the *Performance Review of the Australian Innovation, Science and Research System* and development of the *2030 Strategic Plan for Innovation, Science and Research*
- worked cooperatively with other agencies, including the NHMRC and the Department of Education and Training on a range of research policy activities

### National Innovation and Science Agenda

The ARC is leading implementation of two initiatives under NISA: (i) the introduction of continuous application and expedited decision-making processes under the Linkage Projects scheme, and (ii) a systematic national assessment of research engagement and impact at a university level by discipline, as a companion to the ERA exercise. In 2016–17, the ARC completed the first six months of the continuous submission and assessment process for Linkage Projects 2016, and initiated Linkage Projects 2017 from January 2017. In the first part of the year the ARC recruited and trained panel members for the pilot EI assessment, and in May, received submissions from universities participating in the pilot.

### *Review of Research Policy and Funding Arrangements (Watt Review)*

The final report of the Watt Review, released in December 2015, included 28 recommendations. The Government formally responded to the review in May 2016, accepting all 28 recommendations. In addition to the NISA initiatives, the report included recommendations that relate to the ARC in a number of key areas including the use of experts with experience in industry in assessing proposals for funding, and intellectual property (IP) requirements relating to ARC-funded research.

Experts with experience in industry, collaboration and commercialising research have been identified and will be used to assess grant proposals for funding under schemes in the Linkage Program. The Industry Advisory Panel for the Industrial Transformation Research Program (ITRP) 2017, for example, has its membership sourced equally from industry and academia.

During 2016–17, the ARC started drafting a new IP management policy which will address the recommendations of the Watt Review about Source IP and use of the IP Toolkit model contract and term sheet. The ARC will consult with relevant government agencies and universities as part of the policy's development.

### *Implementation of Science and Research Priority areas*

Information about the ARC's implementation of Science and Research Priority areas under the NCGP is provided on page 25.

### *National policy initiatives and discussions*

The ARC made a submission to the Productivity Commission Inquiry into Data Availability and Use. The ARC submission recognised that open access to research data provides societal (informing better social, economic and other outcomes), research (contributing to the growth of science and research) and individual (flowing from the use and citation of researchers' data outputs) benefits—and emphasised the ARC's commitment to maximising these benefits.

The ARC participated in the Government's Open Access Working Group (established under the *Boosting Commercial Returns from Research Strategy*) tasked with developing principles for open access to publicly funded research publications and data. In addition, the ARC was an active observer on a Universities Australia Deputy Vice Chancellors (Research) Committee working group tasked with developing a statement on access to research outputs.

### *Working with the National Health and Medical Research Council*

As well as the ongoing work with the NHMRC and Universities Australia (UA) on revising the *Australian Code for the Responsible Conduct of Research*, the ARC also participated in the review of Aboriginal and Torres Strait Islander research ethics guidelines, and revisions to the *National Statement on Ethical Conduct in Human Research* (2007). In addition, the ARC also participated in the review of the Human Research Ethics Application (HREA). The ARC's active participation in these reviews has ensured that the scope of these documents has become more relevant to research across all disciplines.

## ARC policy advice supports best practice research

### Why is this important?

Best practice research supports the conduct of high quality research and development of the robust evidence base required to drive discoveries of benefit to the community. It provides the basis for high quality research training and career development and delivers assurance to those who use outcomes of research for innovation. Good research practice also helps build assurance and public confidence in the research process and its outcomes.

### Performance

KPI 3.2 ARC policy advice supports best practice research				
SOURCE		CP 2016–17, page 11		
TARGET		ARC policies support the NCGP particularly industry engagement and research workforce		
RESULTS	2016–17	2015–16	2014–15	2013–14
	Target met	Met	Met	Met

### Analysis of results

The ARC's administration of the NCGP is supported by a range of policy documents. During 2016–17 the ARC:

- reviewed and re-released its *Statement of Support for the Research Workforce*, *Statement of Support and Action Plan for Gender Equality*; *Statement of Support and Action Plan 2017 for Aboriginal and Torres Strait Islander Researchers*, and *Statement of Support for Interdisciplinary Research*.
- drafted an ARC Intellectual Property Management Policy addressing the recommendations of the Watt Review (see page 44)
- released a revised *ARC Research Integrity and Research Misconduct Policy* further strengthening the ARC's requirements in relation to best practice research. In conjunction with the *Australian Code for the Responsible Conduct of Research*, the revised ARC policy serves to support best practice research and safeguard confidence in the value of publicly funded research.
- released a revised *ARC Open Access Policy*.

### Research workforce

The *ARC Research Workforce Statement* outlines the ways the ARC contributes to establishing a sustainable research workforce in Australia including by: funding the best research and researchers in all disciplines, supporting researchers at all career stages and from under-represented groups, providing funding support which gives researchers flexibility in shaping their careers, and providing support to attract and retain the highest quality researchers.

In 2016–17, the ARC reviewed the Research Opportunity and Performance Evidence selection criterion.

## ARC policy advice engages researchers, including international organisations and researchers

### *Why is this important?*

Involving stakeholders in the policy development and evaluation process helps to ensure policies and activities align with their expectations and needs. It increases the diversity of experience and knowledge available to the ARC in identifying relevant issues, analysing policy options and deciding on the appropriate policy instruments. Stakeholder feedback from implementation of policies gives the ARC exposure to valuable information about policy effects, resulting in more successful policy outcomes.

### *Performance*

<b>KPI 3.3</b>	<b>ARC policy advice engages researchers, including international organisations and researchers</b>			
<b>SOURCE</b>	CP 2016–17, page 11			
<b>TARGET</b>	ARC policies reflect national and international research policy developments			
<b>RESULTS</b>	<b>2016–17</b>	<b>2015–16</b>	<b>2014–15</b>	<b>2013–14</b>
	Target met	Met	Met	Met

### **Analysis of results**

During 2016–17, the ARC:

- continued to engage with a broad range of stakeholders both nationally and internationally about research matters, including peer review and program evaluation
- continued to provide evidence-based policy advice, including investigating different ways of interrogating data to help reveal trends or issues of concern
- communicated any changes in its policies to stakeholders in Australia and internationally
- maintained an evaluation plan for key program initiatives
- through its consultation and development activities for ERA and EI, engaged a wide range of researchers, research leaders and managers and experts in research evaluation, both nationally and internationally.

### *National engagement*

In 2016–17, the ARC engaged with academic peak bodies and university peak bodies on ERA and the EI assessment in a wide variety of forums. In 2016–17, the ARC obtained feedback from universities after ERA 2015, through both formal and informal mechanisms. This included direct requests for feedback, and face-to-face meetings with all participating universities, as well as meetings with a range of peak bodies. The ARC also sought feedback from the university sector on updating the ERA Journal List for 2018. This included a formal targeted consultation with the sector in early 2017. This work is informing the development of ERA 2018.

### *International engagement*

The ARC hosted several international delegations in 2016–17, sharing information on the ERA methodology. The ARC also met with senior members of the United Kingdom (UK) research assessment and university sectors in London in early 2017 to gather and share information on measuring research engagement and impact.

The ARC included international researchers on the Steering Committee and working groups that are shaping the EI assessment methodology. Researchers are drawn from the UK, Germany, the United States (US) and Canada. A representative from the ARC visited Latin America to meet with government and industry representatives to promote Australia's research strengths and showcase ERA as a tool for identifying Australian research strengths by university and by discipline.

The ARC also continued to be an active participant in the Global Research Council, attending both the Asia-Pacific regional meeting in Malaysia in November and the annual meeting in Canada in May.

The ARC hosted nine visits from international delegations promoting opportunities available to international researchers and research organisations through the NCGP. In addition, there were 18 instances where the ARC attended or contributed to meetings, interviews or engagements with international stakeholders. In 2017, the ARC consulted with 12 international research funding agencies on best practice peer review and assessment processes.

The ARC supported the Australian Government's Science and Innovation Delegation to Europe in October and participated in the Australia-Germany Joint Science and Technology Meeting, the Australia-Switzerland Joint Science, Research and Innovation Committee Meeting, the Australia-France Science and Innovation Meeting and the Joint Science and Technology Cooperation Committee Meeting with the European Commission.

### **Performance summary**

There were no changes in the ARC's activities, organisational capability or environment that impacted its performance in delivering Key Activity 3: Providing policy advice.

A key development during the year was the conduct by the Government of a range of research and higher education review activities. This provided opportunities for the ARC to engage in discussions and respond to requests for information about a broad range of research and higher education issues.

## 3.2 Financial performance

### SUMMARY

This section provides an overview of the ARC's financial performance during 2016–17 for both departmental and administered activities. It should be read in conjunction with the information on financial performance provided in Part 6 which includes:

- the Australian National Audit Office report on the ARC's financial statements
- the ARC's financial statements (including a statement from the Chief Executive Officer and Acting Chief Financial Officer).

The ARC's Resource Statement and Expenses for Outcome 1 in 2016–17 are provided in Appendix 4 (Tables A3 and A4 respectively).

The ARC's total appropriated resources for 2016–17 were \$777.9 million. This comprised:

- \$751.3 million for the administered appropriation (\$744.4 million special appropriation for the National Competitive Grants Program and \$6.9 million for the annual administered appropriation)
- \$26.6 million for the departmental appropriation (\$21.8 million for operating expenses, \$1.3 million for the Departmental Capital Budget and \$3.5 million for an equity injection).

### DEPARTMENTAL ACTIVITIES

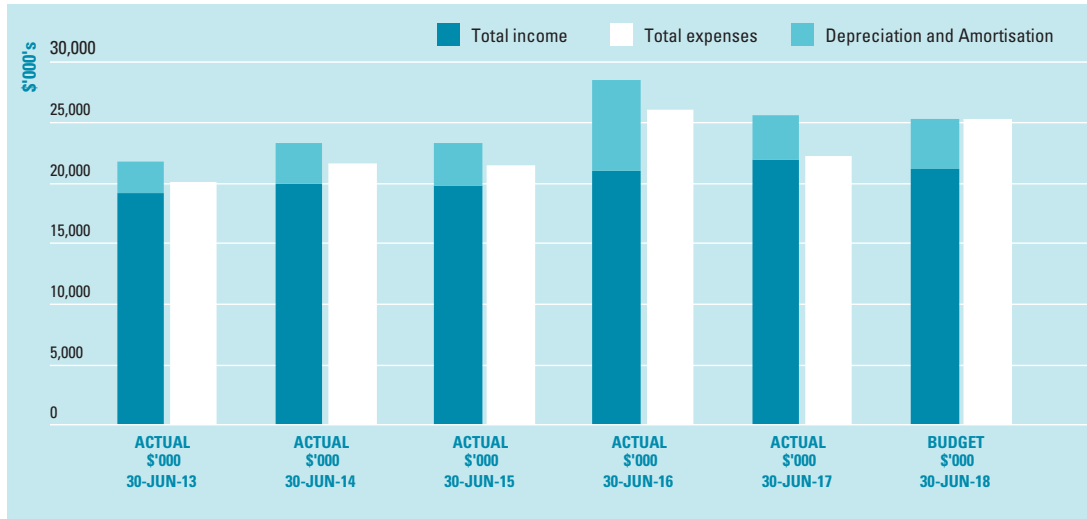
Departmental activities include assets, liabilities, revenues and expenses that the ARC controls directly and uses to produce outcomes on behalf of the Australian Government.

Figure 10 outlines the ARC's departmental financial performance over the past five years and the current budget for 2017–18. Expenditure and Government revenue has been consistent over the 2012–13 to 2014–15 financial years. The increase in 2015–16 and 2016–17 expenditure budget mainly reflects the 2015–16 Mid-Year Economic and Fiscal Outlook (MYEFO) measures relating to the *National Innovation and Science Agenda*.

For 2016–17, the ARC recorded an operating deficit of \$0.3 million. If the depreciation and amortisation expenditure is excluded to account for the net cash arrangements this results in a \$3.4 million surplus.

As indicated in Figure 10 depreciation and amortisation costs for 2015–16 were greater than in previous years and 2016–17. This is mainly attributable to the completion of the Research Management System (RMS) intangible asset in 2015–16. With the completion of the RMS the aged and non-compatible components of the previous RMS were assessed as no longer having a useful life.

**Figure 10: Departmental financial performance, 2012–13 to 2017-18**

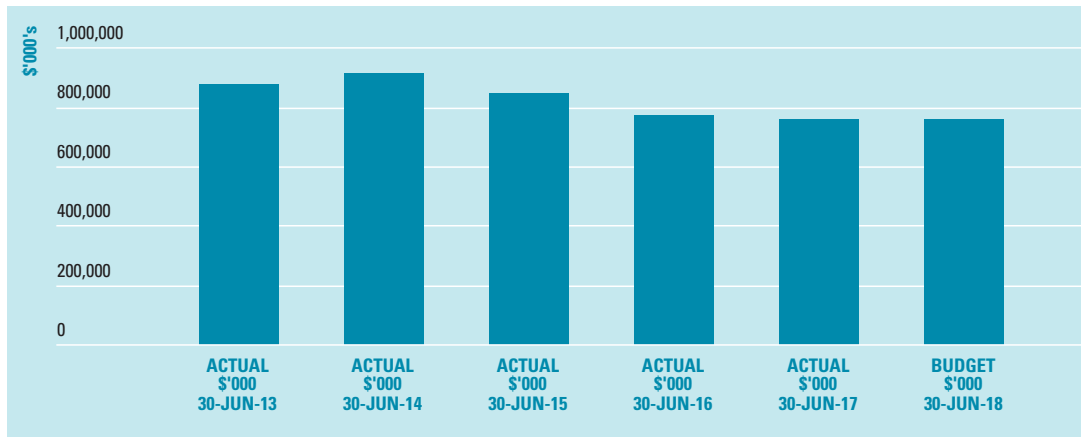


## ADMINISTERED ACTIVITIES

Administered activities includes assets, liabilities, revenues and expenses that are managed by the ARC on behalf of the Government which includes grants and supplier costs.

Figure 11 outlines the ARC's administered financial expenditure over the past five years and the budget for 2017–18. The expenditure fluctuates from year to year and reflects the Government's priorities and also the timing of when expenditure has been recognised.

**Figure 11: Administered financial performance, 2012–13 to 2017-18**





# PART 4 CASE STUDIES

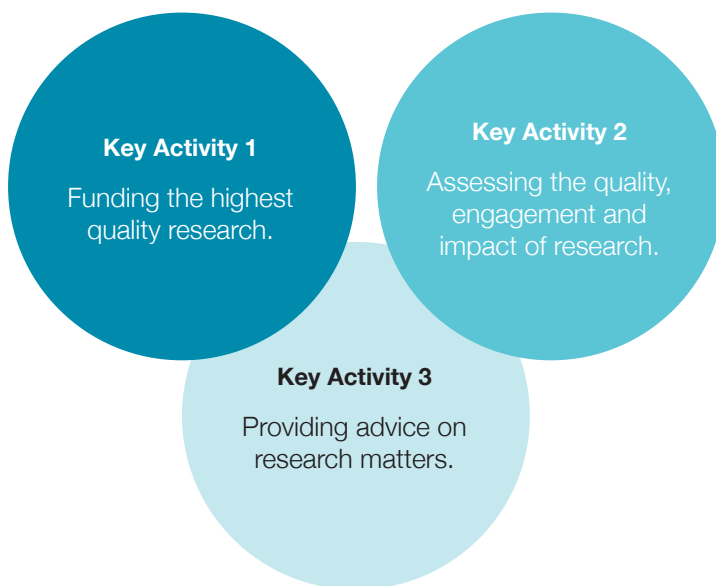
4.1 Case studies in support of the Annual Performance Statement	52
---	----

---

# 4.1 Case studies in support of the Annual Performance Statement

This section provides detailed case studies illustrating outcomes achieved or key projects undertaken against the ARC's three key activities:

- Key Activity 1: Funding the highest quality research
- Key Activity 2: Assessing the quality, engagement and impact of research
- Key Activity 3: Providing advice on research matters



## CASE STUDY 1

### Breakthrough technology makes batteries safe and sustainable

Professor Baohua Jia is driven by the desire to change > lives and shape industries. Her work on solar batteries represents a major breakthrough in energy storage technology and now is being commercialised.

#### Professor Baohua Jia

Swinburne University of Technology  
Discovery Early Career Researcher Award and Discovery Projects schemes  
DE120100291; DP150102972

The goal of producing environmentally friendly, safe, efficient batteries is a step closer to being realised owing to the innovative work of Professor Baohua Jia, Research Leader of Nanophotonics Solar Technology at Swinburne University of Technology.

Professor Jia, a 2012 ARC Discovery Early Career Researcher Award recipient, Australian L'Oréal-UNESCO for Women in Science Fellow and member of The League of Remarkable Women in Australian Science, has worked with colleagues at Swinburne's Centre for Micro-Photonics to develop the battery. Known as the Bolt Electricity Storage Technology Battery, or BEST Battery for short, the technology makes use of a graphene oxide-based supercapacitor.



Swinburne University of Technology

A three-year ARC Discovery Projects grant enabled Professor Jia and her research team to undertake direct laser printing of thin films of graphene oxide, creating a significantly larger surface area on which to store electrical charges. This resulted in a battery which physically stores energy rather than chemically, offering high-performance and low-cost energy storage. The battery is also highly flexible and is able to function without overheating, making it a very attractive component for use in smart phones, portable devices and electric vehicles.

A patent on this technology has already been filed and a commercial prototype is being developed through project partners, Graphene Solutions, a joint venture between graphite miner, First Graphite Resources (FGR), and Melbourne electronics company, Kremford Pty Ltd. If successful, the battery will quickly charge and discharge energy, in theory, millions of times and store power for longer. This is a significant advancement compared to traditional, non-rechargeable chemical batteries, which are toxic to the environment.

## CASE STUDY 2

### Sustaining the arts and cultural sector in remote Australia



#### Associate Professor Brydie-Leigh Bartleet

Griffith University  
Linkage Projects scheme  
LP150100522

Cultural and creative sectors are playing an increasingly crucial role in Australia's economic and cultural development, particularly in regional areas. Associate Professor Brydie-Leigh Bartleet, Director of the Queensland Conservatorium Research Centre and 2014 Australian University Teacher of the Year, is working with researchers at Griffith University, Southern Cross University and the Batchelor Institute of Indigenous Tertiary Education, to examine how the arts and cultural sector is currently functioning in remote Australia and where its growth potential lies.

Researchers are mapping the arts and cultural sectors in the Barkly region in the Northern Territory, surrounding Tennant Creek. Utilising a range of mechanisms, including surveys, interviews and direct consultations with artists, elders, local organisations and community arts workers, the Creative Barkly project will focus on how artistic and creative activities contribute to developing Barkly communities and the region.



- ▲ Renowned Barkly artist, Lindy Brodie, painting the Creative Barkly logo at Barkly Regional Arts.
- ◀ The Creative Barkly Team Leader, Associate Professor Brydie-Leigh Bartleet, with Warumungu Elder, Traditional Owner and Advisor to the project, Rosemary Plummer.

Project partners include Barkly Regional Arts—the region's hub for the arts, which works with over 800 artists in 12 very remote communities to facilitate arts activities—along with Regional Development Australia Northern Territory, a local not-for-profit supporting the sustainable development of the Northern Territory.

The three-year project, funded under the ARC Linkage Projects scheme will contribute to a better understanding of the role of the arts and cultural sectors in remote Australian communities, recognising the unique demographics of these areas. The project aims to create resources to inform current policies, strategies and initiatives to support ongoing development of creative industries, and investment, in remote communities in Barkly and across Australia.

## CASE STUDY 3

### Nanoscale sensor to spot disease

*Associate Professor Guozhen Liu, > creating new windows into the body with her innovative nanoscale biosensor research.*

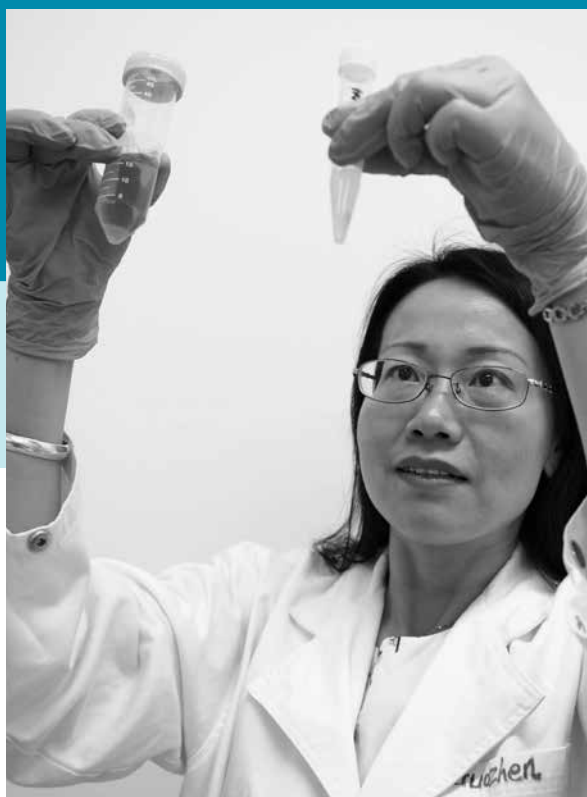
#### Associate Professor Guozhen Liu

Macquarie University  
ARC Centres of Excellence and Future Fellowships schemes  
CE140100003; FT160100039

A new generation of nanoscale 'biosensors', developed by researchers at the ARC Centre of Excellence for Nanoscale BioPhotonics (CNBP), are capable of detecting the early signs of inflammatory disorders and even cancer. Further development could mean that the sensor becomes a common tool in early diagnosis and treatment monitoring, leading to improved health outcomes.

Associate Professor Guozhen Liu, an ARC Future Fellow and CNBP researcher based at Macquarie University, has been leading a team that has developed a nano-sensor to detect cytokines—a category of small proteins that govern basic activities of cells and coordinate cell actions.

Cytokines also play critical roles in chemically-induced tissue damage repair, in cancer development and progression, in the control of cell replication and apoptosis, and in many other aspects of physiology. Consequently, monitoring cell functions and cell-to-cell communication by using cell cytokine secretions has enormous value in biology and medicine.



Tony Crawshaw, CNBP

Due to their low abundance, cytokines are hard to measure and quantify. Consisting of a modified graphene quantum dot (GQD) attached to cytokine sensing DNA molecules known as aptamers, the new sensor is so small that it is easily able to penetrate inside cells and to identify ultra-small levels of cytokines.

While some years away from clinical study, this GQD sensing technology has the potential to develop new diagnostic tools to monitor multiple health conditions. The sensor could also be applied in other biomedical research areas which would benefit from the ability to track and monitor a variety of cellular activities.

## CASE STUDY 4

### Smart windows to save energy

Professor Huijun Zhao >  
in the laboratory

#### Professor Huijun Zhao

Griffith University  
Linkage Projects scheme  
LP160101521

The amount of energy exchange through a conventional window can be almost 10 times that of insulated walls and can account for more than 50 per cent of the energy consumed for heating, ventilation and air-conditioning.

With the support of an ARC Linkage Projects grant, Professor Huijun Zhao, Director of the Centre for Clean Environment and Energy at Griffith University, is leading a research project, in collaboration with Nanyang Technological University in Singapore, to develop 'smart' windows that will contribute to significant energy savings in a building.

By creating new functional nanomaterials, Professor Zhao and his team aim to develop a low-cost smart window that is able to change its colour and the amount of light or heat it transmits.



Fotomedia

“The intended outcomes of this project will facilitate the widespread adoption of energy-saving smart windows, alleviate pressure on the rising energy demand and contribute to the goal of sustainable working and living environment,” Professor Zhao said.

Additional financial and in-kind support from industry partner, Confirmation Australia Pty Ltd—a company that produces glass and glass coatings—is assisting researchers to incorporate the new materials into the glass manufacturing process and will facilitate commercialisation of the new windows.

With the move towards incorporating more automation technology in building design, the development of smart windows has the potential to have a significant impact on both the residential and commercial building industries.

## CASE STUDY 5

### Honouring Aboriginal and Torres Strait Islander military service

Magali McDuffie



Serving our Country researchers, staff and delegates at the Defending Country: Sharing Stories of Aboriginal and Torres Strait Islander Service Conference, December 2014, The Australian National University.

#### Professor Michael Dodson

The Australian National University  
Linkage Projects scheme  
LP120200327

Prominent Australian academic and member of the Yawuru peoples, Professor Michael 'Mick' Dodson AM, is leading an ARC Linkage Project to document the contributions of Aboriginal and Torres Strait Islander veterans and ex-service personnel. The project, *Serving our Country: a history of Aboriginal and Torres Strait Islander people in defence of Australia*, was supported by research partners from The Australian War Memorial, National Archives of Australia and the Departments of Veterans' Affairs and Defence.

In addition to holding a large conference in 2014, the research team visited communities across Australia to hold *Yarn Ups*—oral, video and photo history recordings sessions with Indigenous defence personnel and their families. These were a vital part of the project and allowed individuals to tell their story, their way, helping researchers to gain a richer, deeper history of Aboriginal and Torres Strait Islander people's service. A record of all Yarn Ups and interviews is available on the project website at [www.ourmobserved.anu.edu.au/yarn-ups](http://www.ourmobserved.anu.edu.au/yarn-ups).

The project culminated in a variety of outcomes, including several books, published articles and a major exhibition at the National Archives of Australia, *Facing Two Fronts*. This exhibition blends images, historical records and video portraits to tell not just the stories of Indigenous soldiers who served in various theatres of war, but also how they fought for social justice on their return.

Professor Dodson is Director of the National Centre for Indigenous Studies at The Australian National University. The project also involved collaboration with researchers from the Australian Institute of Aboriginal and Torres Strait Islander Studies, the Australian Catholic University and The University of Newcastle. Key partner organisations included the Departments of Veterans' Affairs, Department of Defence, National Archives of Australia and the Australian War Memorial.

## CASE STUDY 6

### A golden chance to discover dark matter

Dr Phillip Urquijo from The University > of Melbourne checking equipment in the temporary laboratory within the Stawell Gold Mine.



Mark Kilmer

#### Professor Elisabetta Barberio

The University of Melbourne  
Linkage Infrastructure, Equipment and Facilities scheme  
LE170100162; LE160100080; LP150100705

One of the greatest puzzles of modern physics—directly detecting dark matter—is a step closer to being solved with a new project funded through the ARC Linkage Infrastructure, Equipment and Facilities scheme. The funding is being used to build an incredibly sensitive dark matter signal detector system known as SABRE (Sodium-iodide with Active Background REjection) at the Stawell Underground Physics Laboratory in Western Victoria.

Building the detector more than one kilometre underground in an operating gold mine will reduce interference from cosmic rays, allowing researchers to more easily discern dark matter signals. Experiments performed using SABRE will enable Australia to become a world leader in an exciting new field.

The lab's low-radiation environment also provides an ideal setting for ground-breaking work in other areas such as chemistry, biology and defence science. The detector system could even lead to improved gold mapping techniques. Because certain forms of cosmic radiation cannot penetrate gold, researchers will be able to use the detector system to take an 'X-ray' of land around a mine, pinpointing the exact location of gold deposits.

Led by Professor Elisabetta Barberio of The University of Melbourne, the project sees Australian physicists team up with local and international partners from the ARC Centre of Excellence for Particle Physics, the Australian Nuclear Science and Technology Organisation and the Italian National Institute of Nuclear and Particle Physics. The Victorian Government and the Federal Government have also provided \$1.75 million each towards the project.

## CASE STUDY 7

### Exploring Australia's past



Amhika Favel, University of Western Australia

▲ Individual SK14.

< SK16.



Jeremy Green, WA Museum

#### Professor Alistair Paterson

The University of Western Australia  
Linkage Projects scheme  
LP130100137

A reassessment of some of the earliest shipwrecks in Australian waters using new technologies and techniques has expanded our understanding of the past. Researchers have investigated seven European shipwrecks as part of an ARC Linkage Project, including the ill-fated Dutch East India Company vessel *Batavia*, which was wrecked on a reef in 1629 near the Houtman Abrolhos Islands 60 kilometres off the coast of Western Australia. Many of the 340 people on board managed to make their way over the reef to nearby islands, only to become embroiled in a bloody mutiny. What ensued remains one of the darkest and most remarkable chapters in the story of Australia's early maritime history.

The multidisciplinary collaboration, led by Professor Alistair Paterson at The University of Western Australia (UWA), involves state, national and international partners from Europe and Australia including the British Museum, the Cultural Heritage Agency and National Archives of the Netherlands and the Western Australian (WA) Museum.

As part of the study, geoscientific investigations and archaeological excavations conducted by the team on Beacon Island led to the discovery of several victims of the 1629 mutiny. Forensic analysis of the remains provided further insight into the lives and untimely demise of the victims. Isotopic analyses are revealing their life histories in Europe before joining the fateful voyage. Researchers also developed a virtual reality simulation of the island, enabling members of the public to explore and understand the tiny island's dramatic place in Western Australian history.

This research has led to exhibitions at the WA Museum and UWA galleries, and will be featured on national free-to-air media in 2017 and 2018. The project has strengthened our understanding of the ways scientific approaches enhance our understanding of Australia's wrecks and their associated artefacts, helping to inform better protection and management of Australia's maritime history and heritage.

## CASE STUDY 8

### Nanotech technology to reduce car exhaust pollution

ARC Future Fellow, Professor Yusuke > Yamauchi from the Australian Institute for Innovative Materials (AIIM) at the University of Wollongong (UOW), with fellow AIIM researcher, Dr Md Shahriar Hossain.

#### Professor Yusuke Yamauchi

University of Wollongong  
Future Fellowships scheme  
FT150100479

ARC Future Fellow, Professor Yusuke Yamauchi, is part of a team of researchers from the University of Wollongong's Australian Institute for Innovative Materials (AIIM) and Australian Nuclear Science Technology Organisation that, in collaboration with researchers in Japan, Turkey and Bangladesh, have created a new nanomaterial with the potential to significantly reduce pollution from vehicle exhaust.

The team created porous rhodium on a nanoscale. Rhodium is a chemical element commonly used in catalytic converters—the emissions control device in vehicles that converts toxic gases and pollutants in exhaust gas to less toxic pollutants. Making the material porous increases its surface area, thereby making it more effective. While the new material can already be used to replace conventional catalytic converters, the team is looking to develop a hybrid system that can decompose nitrogen oxide (NO<sub>x</sub>) and sulphur oxides (SO<sub>x</sub>) as well as carbon dioxide. The team is also looking at the efficiency of other metals.



Paul Jones, UOW

The technology could play a big role in reducing air pollution around the world, but may be of particular benefit in South Asian countries like Bangladesh and other parts of the developing world. While there is a move towards electric cars, in these countries petrol and diesel engines will continue to dominate for decades. As high levels of NO<sub>x</sub> and SO<sub>x</sub> in the atmosphere have a detrimental environmental effect and is toxic to plants, this new technology has the potential to improve health outcomes as well as food and nutritional security.

The aim of the Future Fellowships scheme is to attract and retain the best and brightest mid-career researchers. In 2015, Professor Yamauchi joined AIIM from Japan's National Institute of Materials Science. As well as support from the ARC, this research has received support from the University of Wollongong and the World Bank.

## CASE STUDY 9

### A world of opportunity for pattern recognition in big data

ARC Australian Laureate Fellow, >  
Professor Svetha Venkatesh.

#### Professor Svetha Venkatesh

Deakin University  
Australian Laureate Fellowships scheme  
FL170100006



Deakin University

Professor Svetha Venkatesh at Deakin University has been awarded a prestigious Australian Laureate Fellowship to further her groundbreaking work in pattern recognition. Designed to reflect Australia's commitment to excellence in research, this prestigious award celebrates pre-eminent scientists and their leadership and mentoring contribution to Australia's research community.

As one of Australia's leading experts in computer science, Professor Venkatesh, who also is the Director of Deakin University's Centre for Pattern Recognition and Data Analysis (PRaDA), has pioneered the development of new technologies that recognise patterns in big data.

With the support of numerous ARC grants, her research has contributed to a range of industries and has led to start-ups such as iCetana, an information and technology system that finds

anomalies through video analytics to detect potential security threats in large data sets; and Toby Playpad, an application for children with autism. Another of Professor Venkatesh's achievements is the development of a health analytics program to help doctors predict suicide risk in patients. This project has resulted in iHosp, a start-up that promises to improve efficiency and patient care in hospitals around the world.

Professor Venkatesh's latest project aims to accelerate scientific innovation through pattern analysis. Expected outcomes of the project include advancing the theory and practice of pattern recognition, transforming the way complex experimental explorations can be done and establishing Australia as a leader in innovation-led productivity in the fourth industrial revolution.

## CASE STUDY 10

### Sequencing ancient DNA to understand modern diseases

The assembled Neanderthal skeletal remains from the Spy Cave > site, Belgium. DNA from the dental calculus reveals the Neanderthals had been eating woolly rhino, mouflon sheep and mushrooms, reflecting the local environment at the edge of the mammoth steppe, which stretched across to Alaska.



Royal Belgian Institute of Natural Sciences

#### Dr Laura Weyrich

The University of Adelaide  
Discovery Early Career Researcher Award scheme  
DE150101574

Ancient dental plaque is being used by researchers to unlock the evolutionary history of the human microbiome—the collection of bacteria, viruses, and other microorganisms that live on and within the human body. Investigating how these bacterial communities are established and how they respond to changes in diet, environment, culture and location can help us understand their role in human health and disease management.

Paleomicrobiologist, Dr Laura Weyrich from The University of Adelaide's Australian Centre for Ancient DNA, examined ancient bacterial communities preserved in 48,000-year-old Neanderthals as part of an ARC Discovery Early Career Researcher Award project. By sequencing ancient DNA within the preserved dental plaque of Neanderthals from Spain and Belgium, Dr Weyrich and her colleagues have revealed fascinating insights into the interactions, behaviour, culture and knowledge of Neanderthals.

Findings from Dr Weyrich's research identify significant differences in the Neanderthals' microbiome based on their diets. In addition, the research found that Neanderthals and humans share a number of microbes, indicating that interactions between the two could have been more intimate and ancient than previously thought. In contrast to their typical depiction as club wielding oafs, the research also suggests that Neanderthals maintained an extensive knowledge of treatments for ailments and were self-medicating with natural remedies, such as aspirin sourced from poplar trees and antibiotics from mould.

Cultural changes, dietary shifts, and disease have shaped the evolution of the microbiome through the course of human history. According to Dr Weyrich, tracking changes in how bacteria and pathogens have changed over time, and investigating the microbiome interchange between Neanderthals and modern humans, can provide a better understanding of today's diseases.

## CASE STUDY 11

### Creating ultra-hard hexagonal diamonds

Associate Professor Jodie Bradby. >



#### Associate Professor Jodie Bradby

The Australian National University  
Future Fellowships scheme  
DP140102331; FT130101355; LE140100104; LE0775679

An international team of scientists have artificially produced a type of diamond previously only found in nature at the site of meteorite impacts. The ultra-hard diamond, known as lonsdaleite, was the result of an international collaboration led by ARC Future Fellow, Associate Professor Jodie Bradby, from The Australian National University.

The research team produced lonsdaleite when they compressed a form of pure carbon in a diamond anvil cell, a device in which two opposing diamonds apply super-high pressures. When they examined the results, the research team realised that the carbon atoms in the diamond had a hexagonal arrangement. While the arrangement of carbon atoms in normal diamonds is cubic, the hexagonal structure of this nanocrystalline lonsdaleite makes it even harder than regular diamonds.

Named after pioneering crystallographer, Dame Kathleen Lonsdale, artificial lonsdaleite could be used for a variety of applications. According to the researchers, lonsdaleite's comparative hardness means that the material could be used at mining sites and in other industrial processes that require cutting ultra-solid materials. "Any time you need a super-hard material to cut something, this new diamond has the potential to do it more easily, and more quickly," Associate Professor Bradby said.

Co-researcher, Professor Dougal McCulloch an ARC-funded researcher from RMIT University, suggested that the success of the project was due to the teamwork of world-leading scientists and the use of cutting-edge technology. The research team involved in this discovery included scientists from RMIT University (using microscopes funded through the ARC Linkage Infrastructure, Equipment and Facilities scheme) and The University of Sydney, along with collaborators from the United States. Associate Professor Bradby was awarded an ARC Future Fellowship in 2014 to study materials at extreme pressures.

## CASE STUDY 12

### Safeguarding the future of the elusive platypus



- ▲ Dr Gilad Bino, measuring bill width of a female platypus on the Severn River NSW.
- > Dr Bino processing an anaesthetized platypus—just about to take a food sample from the animal's cheek pouch.

#### Professor Richard Kingsford

The University of New South Wales  
Linkage Projects scheme  
LP150100093

Despite the platypus being an iconic Australian animal, in 2016 it was listed as 'near-threatened' by the International Union for Conservation of Nature. To maintain healthy and viable populations, platypuses need to be able to move around and between river systems and deep pools. However, in many areas the degradation and modification of Australia's riparian ecosystems and rivers through the building of dams, and other pressures, has resulted in platypus populations coming under threat.

In response to the reported decline in platypus numbers, Professor Richard Kingsford, Director of the Centre of Ecosystem Science at The University of New South Wales, is leading a project to assess the status of platypus populations. The *Platypus Conservation Initiative*, funded by an ARC Linkage Projects grant, is

a multidisciplinary collaboration involving three universities, six federal and state environmental agencies and departments and other key stakeholders. The project aims to safeguard the future of this elusive animal by identifying threats and effective conservation actions to mitigate the risk of platypus extinction.

Due to their predominantly nocturnal nature, data on platypus populations has been difficult to collect and often relied on anecdotal and archival documents. In collaboration with technology giant Google, Cesar Australia one of the partners in the research team have developed platypusSPOT, an app where the public can become citizen scientists and help better understand the status of platypuses by submitting a photo and observations of a platypus sighting. To date, over 360 observations have been submitted through the app.

In May 2017, the 'best platypus minds' came together for a conference and workshop at Taronga Zoo to discuss their research and to develop a conservation plan for the future.

## CASE STUDY 13

### The triggers of evolution and extinction of life on Earth

Distinguished Professor Ross Large, >  
ARC Centre of Excellence in Ore Deposits.



Karen Brown

#### Distinguished Professor Ross Large

University of Tasmania  
ARC Centres of Excellence and Discovery Projects schemes  
CE0561595; DP150102578

A multidisciplinary research project led by renowned expert in ore deposit geology, Distinguished Professor Ross Large from the University of Tasmania (UTAS), is providing new insights into the fields of biology and evolution.

The Trace Elements in Past Oceans (TEPO) project won the 2016 *UNSW Eureka Prize for Excellence in Interdisciplinary Research* for ground-breaking work in understanding the connections between plate tectonics, past ocean chemistry and the evolution and extinction of life on Earth. The project is a collaboration of international researchers from the ARC Centre of Excellence in Ore Deposits, Flinders University, the Russian Academy of Science, and the University of California Riverside, utilising analytical chemistry, geology, palaeontology, evolutionary biology and toxicology. Key infrastructure for this project has included the ARC Centre of Excellence laboratory for Laser Ablation Inductively Coupled Plasma Mass Spectrometry analysis funded jointly by the ARC, industry and UTAS. This is one of a handful of global laboratories capable of this type of micro analysis of sulphide minerals.

In a result that may change the way we understand evolution, the research team has shown that almost every major growth period or extinction in the Earth's history correlates with a change in the amount of the trace element selenium in the ocean—high levels of selenium show growth and low levels indicate extinctions.

The team made the remarkable finding when they analysed pyrite, or fool's gold, in core samples, which are sections of rock drilled from deep below the ocean floor. Using innovative laser-based analysis, the team found that many trace elements in the ocean dropped to very low concentrations during particular short time intervals over the past 500 million years, correlating precisely to the timing of three of the five biggest mass extinction events on Earth.

Distinguished Professor Ross Large has been awarded a Discovery Projects grant to conduct further work in this area and to better understand changes in atmosphere oxygen, triggers for the evolution of life and to support targeted mineral exploration in metal-rich basins across Australia.

## CASE STUDY 14

### Using silk to fix eardrums

Professor Xungai Wang (Centre) > with Deakin team members Dr Ben Allardyce (Left) and Dr Rangam Rajkhowa (Right).



Deakin University

#### Professor Xungai Wang

Deakin University  
Linkage Projects scheme  
LP110200547

One of Australia's foremost experts in the area of fibre science, Professor Xungai Wang from Deakin University, has been the recipient of a number of ARC grants. The funding, from both the ARC's Discovery and Linkage Programs, has supported the work of Professor Wang and his team and has contributed to major advancements in materials science and engineering research. Research conducted by Professor Wang, who is also Director of the ARC Research Hub for a World-class Future Fibre Industry, has supported Australia's multi-billion dollar fibre industry and is now finding applications in new and novel products.

A collaboration between Professor Wang and Ear Science Institute Australia (ESIA) has resulted in an innovative silk membrane that could soon assist the estimated 330 million people worldwide who suffer chronic eardrum perforation due to infection. Development of a thin, transparent membrane dubbed 'ClearDrum' has been supported by an ARC Linkage Projects grant. When inserted into the

ear, the ClearDrum membrane acts as a bio-scaffold, allowing cells to grow on and into it, helping with the healing process.

Professor Wang and his team's expertise in silk fibres, together with the ESIA team's work on protein functionality and application, facilitated the use of silk proteins called 'fibroin' to produce the membrane. According to Winthrop Professor Marcus Atlas, a specialist in ear and hearing disorders and a research collaborator from ESIA, they made contact with Professor Wang due to his extensive experience in silk materials.

In an indication of the significance of this product, the Wellcome Trust Translation Fund recently awarded ESIA and Professor Wang's team nearly \$4 million to bring ClearDrum to market as quickly as possible.

## CASE STUDY 15

### Laser technology to weed out farmers' problems

Spectral laser-based weed sensor. >

#### Professor Kamal Alameh

Edith Cowan University  
Linkage Projects scheme  
LP140100774

Kamal Alameh, Edith Cowan University



A system that uses lasers to identify and discriminate between crop and weed could soon be saving Australia's agricultural sector hundreds of millions of dollars a year. Funding from an ARC Linkage Projects grant was awarded to Professor Kamal Alameh from Edith Cowan University's Electron Science Research Institute to refine and commercialise the technology. A decade in the making, the 'Photonic Weed Detection System' will enable farmers to better manage their crops and increase their farm productivity.

The system works by shining laser beams of different wavelengths onto plants. Information from the reflected light is then matched against a specific weed or crop, providing farmers with real-time discrimination between differing types of vegetation. According to Professor Alameh, field tests show that the system can discriminate between crop and weed with an accuracy of more than 95 per cent.

The first-of-its-kind system sees a dramatic improvement over current approaches to weed management, allowing precise herbicide spraying of targeted weeds. Introduction of the system is expected to result in increased crop yields with reduced environmental impacts. With the cost of weeds to Australian agriculture estimated to be around \$4 billion per annum, the technology could mean a decreased risk of herbicide resistance and substantial long-term cost savings.

## CASE STUDY 16

### Continuous application process under the Linkage Projects scheme

The Linkage Projects scheme opened for continuous applications on 1 July 2016. The continuous process means that proposals may be submitted at any time in the ARC's Research Management System (RMS) and that assessment commences as soon as they are submitted. To enable the ARC to inform applicants of outcomes as soon as possible, high and low-ranked proposals are fast-tracked through the assessment process with outcomes announced as early as possible after submission. All proposals are expected to be announced within six months of proposal submission.

The purpose of moving to a continuous cycle is to allow for Linkage Projects proposals to be submitted at a time suitable to partners, rather than fitting in with a structured application cycle. One of the performance indicators identified for this initiative is that the Linkage Projects scheme supports greater industry participation in collaborative research projects funded under the scheme.

A comparison of the results over the past four selection rounds is provided in Table 2.

**Table 2: Type of partner organisation, proportion of total number (2014 to 2016)**

TYPE OF PARTNER ORGANISATION	2014		2016	
	2014	2015	RD1	RD2
Australian company	33%	25%	28%	35%
Australian Federal Government	5%	4%	6%	5%
Australian non profit	14%	17%	13%	15%
Australian state, local government	28%	30%	31%	20%
International government	1%	1%	1%	0%
International higher education	3%	4%	2%	1%
International company/ industry body	11%	9%	9%	15%
International non profit	1%	2%	3%	0%
Other	2%	8%	8%	7%
Total	100	100	100	100
% Industry organisations	45%	34%	37%	50%

The ARC will undertake a post implementation review in 2017–18 and a more comprehensive evaluation in early 2021. The post implementation review will consider preliminary outputs of the scheme (for example, the number and type of collaborations supported) as well as stakeholder satisfaction with the new arrangements.



## **MEDIA RELEASE**

*Australian Research Council*

**30 January 2017**

### **Continuous Linkage Projects: facilitating industry collaboration**

The Australian Research Council (ARC) has released details of the first successful research project proposals to be funded under its continuous Linkage Projects scheme, including research that will improve our national rail track system, develop better coal seam gas water treatment, and improve the efficiency of Australia's mining sector.

ARC Acting Chief Executive Officer, Ms Leanne Harvey, said the Minister for Education and Training, Senator the Hon. Simon Birmingham, announced the new successful projects today, which will strengthen industry-research collaborative efforts. This delivers on an important National Innovation and Science Agenda (NISA) measure to implement a continuous application process for the ARC's Linkage Projects scheme, said Ms Harvey.

"From 1 July 2016, the ARC commenced accepting proposals under the Linkage Projects scheme on a continuous basis—a significant move away from the previous 'one round per year' approach. These new Linkage Projects involve significant collaboration between higher education researchers and other parts of the national innovation system—with matching cash and in-kind contributions provided by Partner Organisations, including: Queensland Gas Company; Australasian Centre for Rail Innovation; BHP Billiton Innovation; and Newcrest Mining.

The new projects awarded funding today include:

- \$675,000 to University of Wollongong, for a project led by Professor Buddhima Indraratna, to examine the factors that cause mud pumping and evaluate the effectiveness of sub-surface drainage to prevent rail track instability, particularly for mining and agriculture loads. The project aims to improve track longevity and reduce maintenance costs, with a corresponding boost in rail productivity.
- \$450,000 for a research project at The University of Queensland, led by Dr Steven Pratt, to develop strategies to mitigate silica scaling at coal seam gas water treatment facilities. The project may lead to more productive use of assets, improved pretreatment infrastructure, and the environmental benefits of reduced chemical waste and increased water recovery.
- \$555,000 to The University of Queensland, for a research project led by Associate Professor Yongjun Peng, to understand the reactions taking place during the recovery of base-metal and precious minerals. The project will develop new technologies to achieve mineral separation and metal extraction more efficiently and economically, halving the operating costs and providing reductions in harmful emissions.
- \$195,000 for a research project at The University of Queensland, led by Professor Peter Hayes to support improved extraction and utilisation of Australia's iron ore resources by providing new technical information on the behaviour of ores during iron ore sintering. The project may improve the iron-making process, supporting companies to efficiently use, market, and sell different iron ores.

"The ARC is proud to have delivered on this key NISA measure to boost the innovative capacity of the nation by supporting research collaboration."

## CASE STUDY 17

# Building Australia's research capacity in priority areas

### *Special Research Initiative for Antarctic Gateway Partnership*

### *Special Research Initiative for Type 1 Juvenile Diabetes*

### *Special Research Initiative for Tropical Health and Medicine*

In 2016–17, the ARC also provided ongoing funding for a number of initiatives in priority areas that commenced in previous years.

#### **Antarctic research**

In May 2017, the Antarctic Gateway Partnership took delivery of its autonomous underwater vehicle and are organising a number of field activities where it will collect both data and physical samples around and below the Antarctic ice shelves.

With the successful completion of several research voyages in the 2016–17 Antarctic field season, the Antarctic Gateway Partnership was able to undertake significant research into glacial ice shelf melting, Southern Ocean biomass and Antarctic geology. These voyages were undertaken in collaboration with the Australian Antarctic Division, the Antarctic Climate and Ecosystems Cooperative Research Centre and CSIRO.

#### **Type 1 Juvenile Diabetes**

In April 2016, the Juvenile Diabetes Research Foundation (JDRF) called for applications for the Innovation Awards. The Innovation Awards sought innovative proposals from collaborative teams outside existing Type 1 diabetes research areas. In February 2017, Ministers Birmingham and Hunt announced \$4.5 million in funding for the Innovation Awards. In 2016, JDRF partnered with several institutes in Australia working in the field of diabetes, bringing together scientists, clinicians, patients and government.

#### **Tropical Health and Medicine**

In October 2016, the Queensland Premier opened newly completed facilities commissioned by the Australian Institute of Tropical Health and Medicine (AITHM) at the Townsville campus of James Cook University. A total of \$8 million of ARC Special Research Initiative funding was directed to its construction. A second tropical health research and training facility in Cairns is under construction using \$18 million of ARC Special Research Initiative funding, with completion expected later in 2017.

AITHM continues to collaborate widely internationally, working with key international organisations such as the World Health Organisation and the Asia Pacific Malaria Elimination Network. In total, AITHM collaborated with 35 countries in 2016, including Papua New Guinea, the Solomon Islands, Thailand, Brazil, Mexico, the United Kingdom, the Netherlands, Mali and Mozambique.

Cross-section of nupiri > muka being deployed into the water.

Dr Damien Guilhen



v Ms Judi Moylan, Chair Diabetes Australia (Left) with Mr Mike Wilson, Chief Executive Officer and Managing Director, Juvenile Diabetes Research Foundation and Senator the Hon. Simon Birmingham.

Juvenile Diabetes Research Foundation. Photo by Mark Graham



## CASE STUDY 18

# State of Australian University Research 2015–16: Volume 2 Institutional Insights

The *State of Australian University Research 2015–16: Volume 2 Institutional Insights* looks at selected topics to provide further understanding of the state of Australian university research.

With three rounds of Excellence in Research for Australia (ERA) now complete, the ERA dataset covers all Australian university research outputs, staffing and activity from 2003 to 2013, and research income and research application data from 2006 to 2013. It is now possible to analyse this longitudinal data.

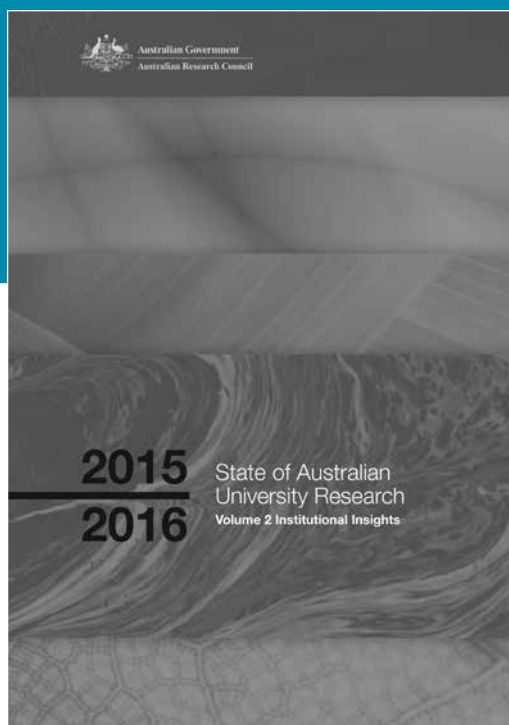
The topics covered in this report are:

- ERA ratings
- gender and the research workforce
- open access
- volume of submitted outputs in ERA 2015
- changes in percentage of contribution to the national landscape.

### ***Use of gender data***

As part of the *ARC Gender Equality Action Plan 2017*, the ARC undertook to consider NCGP gender data within the context of research data collected through ERA.

NCGP gender data collected in 2016 showed that the submission rate by gender varies significantly by discipline and by scheme. For example in 2016 Engineering (Field of Research Code 09) proposals involved 3379 men and 448 women. However, in Language, Communication and Culture (Field of Research Code 20), the



gender balance was more even and 257 men and 239 women were involved in proposals. Notably, in this field, the success rate of women (16.3 per cent) was much greater than the success rate of men (12.8 per cent).

Data collected as part of ERA 2015 can be used as a reference point. In that collection, 57.1 per cent of researchers were male and 42.7 per cent female. ERA showed that different fields of research have different participation rates for men and women. At the two-digit Field of Research level, five out of 22 codes have a greater proportion of female participants than male participants.

# ARC statement of support for interdisciplinary research

In October 2016 the ARC released a *Statement of Support for Interdisciplinary Research* outlining processes the ARC has in place to ensure equitable assessment and evaluation of interdisciplinary research under the NCGP and ERA. The statement also includes actions that the ARC will implement in 2016–17 to further support interdisciplinary research.

Initiatives highlighted in the statement of support are the introduction of an option for researchers to identify their proposal as interdisciplinary at submission and a drive to recruit College of Expert members with interdisciplinary expertise to facilitate assessment of interdisciplinary research proposals.

In 2017:

- 60.1 per cent of proposals received and 59.3 per cent of projects funded identified as involving interdisciplinary research
- the success rate of interdisciplinary projects was 18.5 per cent
- ‘Methodology’ was the most frequently indicated interdisciplinary element of proposals and funded projects (80 per cent and 84 per cent respectively)
- the primary 2-digit Field of Research with the highest proportion of interdisciplinary proposals was ‘Medical and Health Sciences’ (82.1 per cent of proposals)
- the primary 2-digit Field of Research with the lowest proportion of interdisciplinary proposals was ‘Economics’ (24.1 per cent of proposals).

The data on interdisciplinary research will be used to inform future ARC policy.

## CASE STUDY 20

### ARC support for the research workforce

The ARC is committed to funding the highest-quality research and researchers in all disciplines through a competitive peer review process.

In 2016–17, the ARC continued to monitor its support for development of Australia's research workforce. Specifically it:

- reviewed and rereleased the *ARC Research Workforce Statement*
- reviewed and rereleased the *ARC Statement of Support and Expectations for Gender Equality*
- released the *ARC Gender Equality Action Plan 2017*, updating the actions identified in the previous plan
- released a new *ARC Policy Statement: Eligibility and Career Interruptions*
- released a new *ARC Statement of Support for Aboriginal and Torres Strait Islander Researchers*.

#### ***ARC Gender Equality Action Plan 2017***

The *ARC Gender Equality Action Plan 2017* contained a range of new initiatives to improve gender equality in the NCGP including:

- a review of the *ARC Research Opportunity and Performance Evidence (ROPE) statement* (including implementation in application, assessment and meeting processes)
- providing a report to administering institutions on the gender profile of researchers applying from the institution
- strengthening the profile on its website of female researchers, including providing profiles of (i) Kathleen Fitzpatrick and Georgina Sweet Australian Laureate fellows, and (ii) female researchers who have balanced family and research careers or successfully re-entered the research workforce from a career interruption.

At 30 June 2017, the ARC had completed a consultation to inform the review of ROPE and provided profiles of female researchers on its website.



Professor  
Branka Vucetic

**2016 ARC Georgina  
Sweet Australian  
Laureate Fellow**

Professor Branka Vucetic's Laureate project aims to develop theories and practical methods to design wireless communication systems for future generations of internet services. Emerging smart environments and infrastructure could solve major problems facing the world today, by saving energy, reducing pollution, improving health and increasing road safety. Scientists to date however do not know how to build wireless networks with almost zero latency and ultrahigh reliability, which are needed for machine-to-machine communications. An expected outcome of this project is new criteria and methodologies to design such wireless systems, which would affect future wireless systems and grids.

Professor Vucetic will use the Georgina Sweet Fellowship to create a program of activities that will support the promotion of Science, Technology, Engineering and Mathematics (STEM) education in Australia at high schools and universities. In the first initiative she will develop a program to engage with communities of high school students and teachers to promote STEM education in high schools. In the second initiative Professor Vucetic plans to organise an annual event at The University of Sydney that will emphasise female undergraduate students, with the aim of introducing them to postgraduate STEM research.

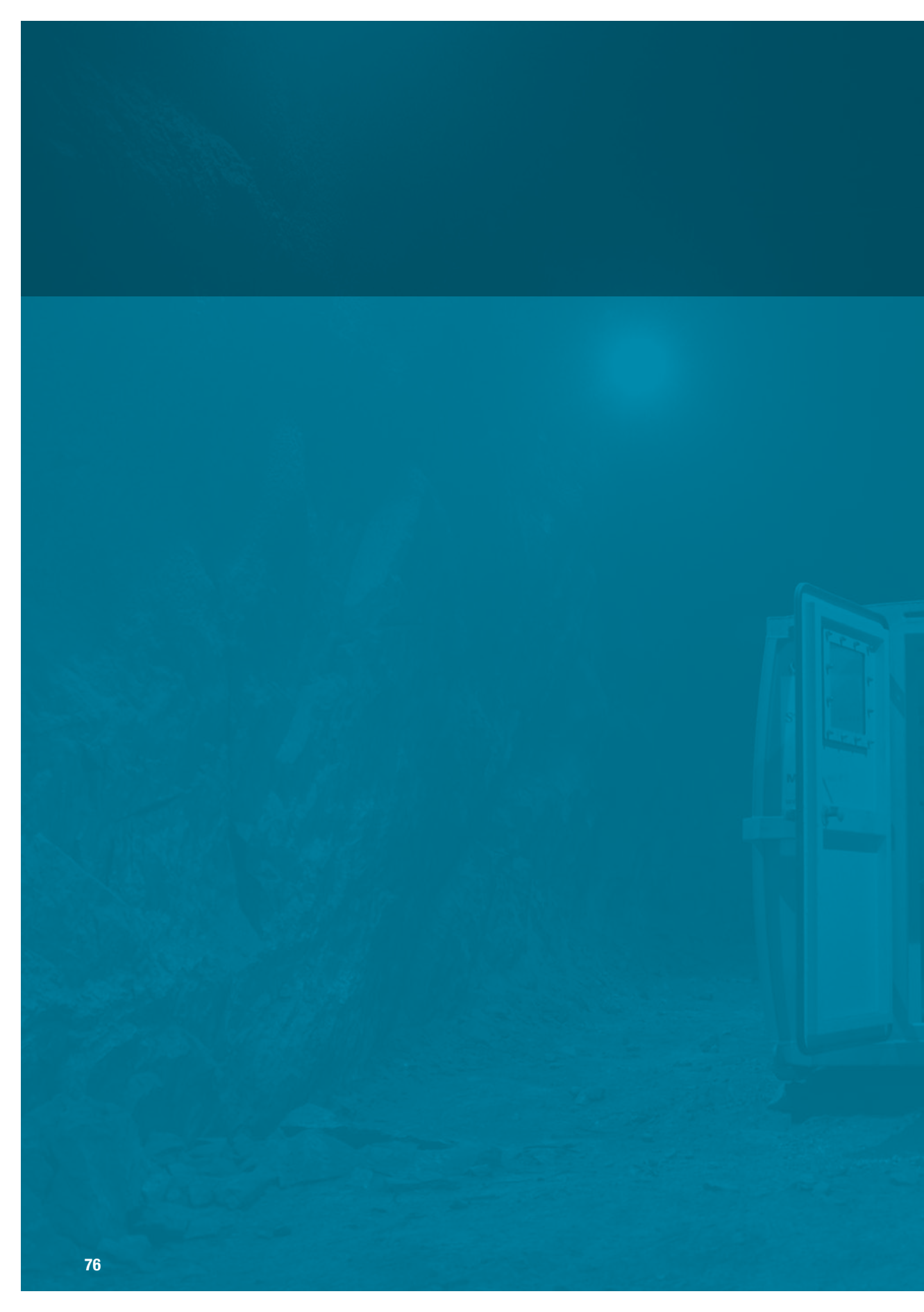


Professor  
Sharon Parker

**2016 ARC Kathleen  
Fitzpatrick Australian  
Laureate Fellow**

Professor Sharon Parker plans to study how transformative work design promotes meaningful, healthy, and productive work. The 'what, how, where, when, and who' of work is changing: the digital revolution is reconfiguring work processes more rapidly and on a much larger scale than ever before, and the demography of the workforce is profoundly shifting. Work design is a crucial but neglected strategy for optimising health, for unleashing employee talent, and for creating agile and effective organisations.

In her ambassadorial and mentoring role, Professor Parker will undertake a variety of activities, such as a literature review on women academics' careers, including influencing factors, the design, pilot, and evaluation of an evidence-based program to provide early career academic women with support, mentoring, skill development, and networking to enhance their research effectiveness. Professor Parker also plans to introduce a second evidence-based program that is targeted at decision makers, leaders, and professional staff who make decisions that affect womens' careers.



# PART 5 MANAGEMENT AND ACCOUNTABILITY

<b>5.1 Corporate governance</b>	<b>78</b>
<b>5.2 External scrutiny</b>	<b>90</b>
<b>5.3 Management of human resources</b>	<b>92</b>
<b>5.4 Assets management</b>	<b>99</b>
<b>5.5 Purchasing</b>	<b>100</b>
<b>5.6 Consultants</b>	<b>101</b>
<b>5.7 Australian National Audit Office access clauses and exempt contracts</b>	<b>102</b>
<b>5.8 Procurement initiatives to support small business</b>	<b>103</b>
<b>5.9 Other mandatory information</b>	<b>104</b>

# 5.1 Corporate governance

## FRAUD MANAGEMENT

In accordance with section 10 of the *Public Governance, Performance and Accountability Rule 2014* (PGPA Rule) the ARC Chief Executive Officer (CEO) must take all reasonable measures to prevent, detect and deal with fraud relating to the agency.

The ARC recognises the need for a sound and robust financial framework based on legal and ethical decision making. Management has a key responsibility to ensure that the ARC's assets are safeguarded against loss by fraud or negligence. ARC staff are required to implement and adhere to fraud control procedures and report all instances of suspected fraud.

The *ARC Fraud Control Plan* (Plan) complies with *Australian/New Zealand Standard for Risk Management* (AS/NZS ISO 31000: 2009) and the Commonwealth Fraud Control Framework 2014. The Plan was reviewed and updated in January 2016 and is next due to be reviewed in January 2018. The Chief Financial Officer reports at each Audit Committee meeting on potential fraud incidents or changes to fraud risk.

## CORPORATE GOVERNANCE STRUCTURES AND PROCESSES

### Senior executive and their responsibilities

During 2016–17, Professor Aidan Byrne was ARC CEO until 30 September 2016. Following his departure, Ms Leanne Harvey was appointed as Acting CEO pending completion of the recruitment process for the new CEO. The new CEO, Professor Sue Thomas, was announced on 26 April 2017 and started with the ARC on 3 July 2017. Prior to her appointment to the ARC, Professor Thomas was Provost and Deputy Vice-Chancellor Research at the University of New England. Professor Thomas' academic background is in microbial genetics and she has significant experience managing innovation across a comprehensive range of disciplines.

At 30 June 2017 the ARC had eight executive staff: the Acting CEO; Acting Executive General Manager (EGM); Acting Branch Manager Corporate; Acting Branch Manager Research Excellence and four Executive Directors. Executive Directors are academics drawn from the higher education and research sectors usually for a period of between three and five years.

In addition to the executive staff, the ARC had two other senior staff at 30 June 2017—the Chief Information Officer and Acting Chief Financial Officer. The ARC also had a Chief Program Officer who, at 30 June 2017, was on secondment with the Office of Innovation and Science Australia.



Above, from left to right: (Back) Professor Therese Jefferson, Ms Julija Deleva, Dr Fiona Cameron, Ms Kylie Emery (Front) Ms Leanne Harvey, Professor Sue Thomas



Professor Stephen Buckman



Ms Sarah Howard



Professor Joanne Tompkins

## **Responsibilities**

### ***Ms Leanne Harvey—Acting Chief Executive Officer***

Responsible for management of the ARC, reporting directly to the Minister for Education and Training

### ***Ms Kylie Emery—Acting Executive General Manager***

Responsible for National Competitive Grants Program (NCGP), Policy and Strategy Branch, NCGP pre-award activities and associated policies, non-financial corporate governance, and data provision and analysis activities

### ***Ms Julija Deleva—Acting Branch Manager, Corporate Services***

Responsible for management of corporate services including finance, human resources, facilities and NCGP post-award activities

### ***Ms Sarah Howard—Acting Branch Manager, Research Excellence***

Responsible for ongoing implementation of the Excellence in Research for Australia (ERA) program, the development of the Engagement and Impact (EI) assessment of university research and ongoing evaluation of NCGP funding schemes

### ***Dr Fiona Cameron—Executive Director, Biological Sciences and Biotechnology (BSB)***

Responsible for BSB issues and NCGP funding schemes

Dr Cameron joined the ARC in July 2012. Prior to commencing at the ARC, Dr Cameron led the Innovation and Consulting Unit at Western Sydney University. In this role, she worked closely with the University Executive, academics, active researchers and the University Research Office to identify opportunities to protect, develop and commercialise intellectual property and to build relationships with industry and government.

### ***Professor Stephen Buckman—Executive Director, Physical Sciences, Engineering, Mathematics and Information Sciences (PSEMIS)***

Responsible for PSEMIS issues and NCGP funding schemes

Professor Buckman joined the ARC in November 2016. Prior to commencing at the ARC Professor Buckman was Director of the Research School of Physics and Engineering at The Australian National University until July 2015 when he retired. Professor Buckman was awarded an AM in the Order of Australia in 2013 for significant service to science in the field of experimental atomic physics as a leading researcher, academic and author.

### ***Professor Therese Jefferson—Executive Director, Social, Behavioural and Economic (SBE) Sciences***

Responsible for SBE issues and NCGP funding schemes

Professor Therese Jefferson joined the ARC in February 2017. Prior to commencing at the ARC, Professor Jefferson was a Research Fellow at the Curtin University of Technology, within the Curtin Business School. Professor Jefferson's research expertise lies in the gendered aspects of employment, economic security and labour markets, with special interest in the economic well-being of people in later life and the use of mixed methodologies in economics.

### *Professor Joanne Tompkins—Executive Director, Humanities and Creative Arts (HCA)*

Responsible for HCA issues and NCGP funding schemes

Professor Tompkins joined the ARC in April 2017. Prior to commencing at the ARC, Professor Tompkins was Associate Dean (Research) in the Faculty of Humanities and Social Sciences at The University of Queensland. Professor Tompkins' research expertise lies in the humanities and creative arts, particularly in spatial theories and virtual reality; multicultural theories and drama; intercultural performance and feminist performance. Her research has assisted the development of cultural spaces for theatres, galleries and museums through three dimensional visualisation and modelling of theatre spaces.

## ARC committees and their roles

The ARC's committees support activities across four key areas:

- governance
- administration of the NCGP
- administration of ERA and the EI assessment
- research integrity matters arising from ARC-funded research.

In 2016–17, the ARC reviewed the need for and membership of all governance committees.

### **Governance**

#### **Senior Management Group**

Senior Management Group (SMG) supports the CEO in delivering their responsibilities under the *Australian Research Council Act 2001* (ARC Act), the *Public Governance, Performance and Accountability Act 2013* (PGPA Act), and the *Public Service Act 1999* (PS Act). It oversees management of the agency, monitors and reviews the operations of the agency, and ensures effective communication of the agency's priorities across all business areas.

SMG meets every two weeks and consists of the CEO, EGM, Branch Manager Policy and Strategy, Branch Manager Corporate Services, Branch Manager Research Excellence, Chief Information Officer, Chief Financial Officer, Chief Program Officer and Director, People and Services.

During the year, the following management committees reported through SMG to the CEO:

- the Business Continuity Plan Committee, which ensures that the Business Continuity Plan remains current and practical, and is tested on a scheduled basis to minimise the likelihood and/or consequence of any potential risk exposure to the core business processes of the ARC
- the Delta Project Board, which provides oversight and operational management for a specific information technology (IT) project, including scope, budget, risk management and scheduling
- the Diversity Working Group, which integrates diversity and equity matters into workplace practice
- the Information and Communications Technology (ICT) Change Control Committee, which oversees approval of changes to ICT applications and infrastructure, and coordinates the release of all changes
- the ICT Governance Committee, which reviews the ICT services requirements for the ARC, and provides recommendations on priorities for the ICT Services Branch
- the Information Governance Committee, which ensures that there is a consistent, systematic and whole-of-agency approach to managing information

- the NCGP Change Advisory Committee, which reviews and assesses NCGP change requests and endorses appropriate work packages for submission to the ICT Governance Committee
- the ORCID (Open Researcher and Contributor ID) Implementation Working Group, which supports and progresses the implementation of ORCID within the ARC
- the People Management and Development Committee, which provides a forum for the ARC to consult with employees and their representatives about workplace issues that affect them
- the Planning and Reporting Committee, which provides advice on all elements of the ARC planning and reporting framework
- the Security Committee, which oversees adherence to physical, personal, and IT security measures within the ARC
- the Work Health and Safety Committee, which develops and promotes initiatives to protect the health and safety of employees, contractors and visitors through the implementation and review of the effectiveness of the ARC's work health and safety policies and practices.

### Audit Committee

The ARC Audit Committee provides the CEO with independent assurance by reviewing the ARC's financial and performance reporting responsibilities; systems for internal control; risk management and corporate governance.

The committee is established by the CEO in compliance with the PGPA Act and PGPA Rule (Section 17). Its functions and responsibilities are detailed in the *ARC Audit Committee Charter* which is reviewed annually or as required. Members are a mix of internal and external appointments who collectively possess a broad range of skills and experience relevant to the operations of the ARC (Table 3). During 2016–17, the ARC Audit Committee held five meetings.

**Table 3: Membership of the ARC Audit Committee, 2016–17**

MEMBER	DATE OF APPOINTMENT	EXPIRY OF APPOINTMENT
Mr P Kennedy, External (Chair)	01/01/2010	30/09/2017
Dr E Arthur, External	01/11/2013	31/10/2017
Dr J Baker, ARC	01/03/2016	28/02/2019
Ms S Howard, ARC	01/10/2014	30/09/2017
Mr G Rankin, External	01/11/2013	31/10/2017
Mrs K Toole, External	15/03/2017	31/03/2019

## Advisory Council

The ARC Advisory Council provides strategic advice to the CEO on issues relating to the purpose of the ARC including: strategic planning; policy matters relating to innovation, research and research training; and matters relating to the evaluation of the quality and outcomes of research and research training in an international context.

The Council is chaired by the CEO and comprises up to nine additional members appointed by the CEO on the basis of their distinguished academic research records and/or achievements in business and/or research (Table 4). Due to the resignation of the ARC's CEO in September 2016, the Advisory Council did not meet in 2016–17.

**Table 4: Membership of the ARC Advisory Council, 2016–17**

MEMBER, INSTITUTION	DATE OF APPOINTMENT	EXPIRY OF APPOINTMENT
Ms L Harvey, ARC (Chair)	08/09/2016	02/07/2017
Professor A Byrne, ARC (Chair)	23/07/2012	07/09/2016
Professor P Buckskin, University of South Australia	01/01/2011	30/06/2017
Ms K Carnell, Australian Small Business and Family Enterprise Ombudsman	01/07/2015	30/06/2017
Professor E Cornish, formerly Monash University	01/07/2015	30/06/2017
Professor P Johnson, The University of Western Australia	01/01/2011	30/06/2017
Professor T Snell, The University of Western Australia	01/07/2015	30/06/2017
Professor P Wellings, University of Wollongong	01/01/2011	30/06/2017
Mr P Yates, Myer Family Investments, Royal Institute of Australia	01/07/2015	30/06/2017

## Administration of the National Competitive Grants Program

### College of Experts

The ARC College of Experts plays a key role in identifying research excellence, moderating external assessments of research grant proposals, and recommending projects to be funded. The College comprises a wide range of experienced and highly qualified people of international standing, drawn from across academia, industry and public sector research organisations. Members are appointed for up to three years and are announced annually, ensuring a constant source of expertise. At the discretion of the ARC, extensions of up to one year may be offered to ensure the availability of expertise across the range of proposals being submitted.

The ARC College of Experts comprised 196 members in 2017. On 24 November 2016 the ARC announced 58 new members for 2017. In the 2017 nomination round, strong emphasis was placed on interdisciplinary expertise, as well as interest in a wide range of research areas. This year, to assist with the continuous application and assessment process implemented under the Linkage Projects scheme, 29 existing members received 12-month extensions to continue as members of the College. A list of members is provided on the [ARC website](#).

### **National Competitive Grants Program Appeals Committee**

The NCGP Appeals Committee considers appeals submitted to the ARC in relation to the NCGP and makes recommendations to the CEO about whether each appeal should be upheld or dismissed. The committee also provides general advice to the ARC about how administrative processes could be modified or improved. The committee consists of external members appointed by the CEO. The 2016–17 members were Emeritus Professor A Cheetham (Chair), Professor H Bachor, and Professor L Johnson. The Appeals Committee met twice in 2016–17.

### **National Competitive Grants Program Eligibility Committee**

The NCGP Eligibility Committee considers eligibility issues under the funding schemes of the NCGP. The Committee, comprising Executive Directors and the Branch Manager, Policy and Strategy, provides recommendations to the ARC CEO. In 2016–17, the NCGP Eligibility Committee met 11 times.

### **National Competitive Grants Program Scrutiny Committee**

The NCGP Scrutiny Committee scrutinises the probity of ARC assessment processes in relation to funding proposals involving members of the ARC College of Experts and/or ARC staff. The committee comprises three members appointed by the CEO. In 2016–17, the members were Professor R Fitzgerald (Chair), Ms V Hart and Mr S Sedgley. The NCGP Scrutiny Committee met twice in 2016–17.

## ***Administration of ERA and the Engagement and Impact assessment***

### **Engagement and Impact Steering Committee**

The EI Steering Committee, which includes higher education and industry leaders, will help to develop a process that uses clear and transparent measures of non-academic impact, and industry and end-user engagement, to assess Australia's university research performance and inform future funding structures. Members of the Steering Committee have been appointed for a term of two years.

### **Technical Working Group**

The role of the Technical Working Group is to provide expert advice on the development of indicators that will support a national engagement and impact assessment. This includes providing advice regarding development of an appropriate methodology; assessment requirements for different disciplines and end-users; along with development of appropriate measures/indicators of research engagement and research impact.

### **Performance and Incentives Working Group**

The role of the Performance and Incentives Working Group is to provide advice to the ARC about the potential incentive effects of the preferred model. This includes identifying how the process and measures in the preferred model will influence the decisions of universities about the focus of their research activities.

### ***Research Integrity matters arising from ARC funded research***

The ARC and the National Health and Medical Research Council (NHMRC) jointly established the Australian Research Integrity Committee (ARIC) in February 2011.

On request, ARIC reviews whether an institution's response to an allegation of research misconduct is consistent with the *Australian Code for the Responsible Conduct of Research (2007)* and the institution's own policies and procedures.

ARIC comprises eight expert members (Table 5) and reports to both the ARC and the NHMRC. During 2016–17, the ARIC-ARC secretariat received two requests for review, both of which were under consideration as at 30 June 2017. One ARIC-ARC review that commenced in 2015–16 was finalised in 2016–17 and the outcomes were communicated to the relevant parties by the ARC.

**Table 5: Membership of the Australia Research Integrity Committee, 2016–17**

MEMBER	YEAR OF CURRENT APPOINTMENT	EXPIRY OF CURRENT APPOINTMENT
Mr R Brent (Chair)	January 2017	December 2019
Dr K Breen	January 2017	December 2019
Ms J Hamblin	January 2017	December 2019
Emeritus Professor S Shaver	January 2017	December 2019
Mr M Chilcott	May 2017	December 2019
Emeritus Professor A Lawson	May 2017	December 2019
Professor M Otlowski	May 2017	December 2019
Professor J Reid	May 2017	December 2019

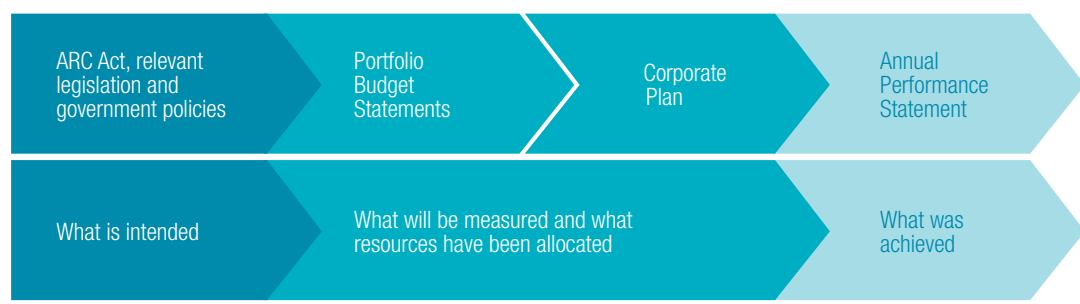
### Planning and reporting arrangements

The ARC’s performance measurement framework is consistent with the requirements of the PGPA Act and the enhanced Commonwealth Performance Framework.

The ARC’s framework ensures there is a clear line of sight between the performance criteria published in the ARC’s Portfolio Budget Statements (PBS) and Corporate Plan, and the performance information published in the Annual Performance Statement in the annual report. Together, these three documents aim to provide the ARC’s complete performance story (Figure 12).

In addition to published performance information, the ARC’s performance measurement framework is supported by internal operational planning, monitoring and reporting processes.

**Figure 12: External planning and reporting framework, 2016–17**



During 2016–17, the ARC:

- prepared the *ARC Annual Report 2015–16*, which was tabled in both Houses of Parliament on 25 October 2016
- prepared the *ARC Corporate Plan 2015–16 to 2018–19*, the second plan prepared under the requirements of the PGPA Act
- following publication of the ARC corporate plan, developed the ARC operational plan for 2016–17. This process allowed branches to map their planned activities to the corporate plan. Biannual reporting against the plan allowed the ARC to track progress against its responsibilities
- established an internal Planning and Reporting Committee to enhance the ARC's performance planning and reporting capabilities
- prepared the 2017–18 PBS in accordance with Department of Finance guidance. The 2017–18 PBS was tabled in Parliament on 9 May 2017 as part of the Education and Training PBS
- continued to review its performance measurement framework in preparation for drafting of the corporate plan 2017–18
- participated in Community of Practice meetings organised by the Department of Finance to share experiences and information about the new planning and reporting requirements.

## Internal audit arrangements including risk

### **Internal audit**

An integral part of the ARC's corporate governance framework is the internal audit function. Internal audit provides an independent and objective review and advisory service, giving the CEO assurance that the ARC's financial and operational controls, designed to manage the entity's risk and achieve the ARC's objectives, are operating in an efficient, effective, economical and ethical manner. Internal audit also assists management in improving the ARC's business performance.

The ARC's internal audit function is managed by the Head, Internal Audit. The Branch Manager, Policy and Strategy assumes the role of Head, Internal Audit. The internal auditor role is outsourced to an independent service provider and reports to the Audit Committee through the Head, Internal Audit. In 2016–17, the ARC's internal auditor was KPMG.

KPMG assisted in the development of an annual internal audit work plan and undertook the following audits during 2016–17:

- Data integrity: NCGP data warehouse
- Eligibility processes health check
- Fraud scenario based workshops
- Recruitment processes.

## **Risk**

### **Framework**

The ARC manages risk in accordance with the PGPA Act, the *Commonwealth Risk Management Policy* and the *Australian/New Zealand Standard for Risk Management (AS/NZS ISO 31000: 2009)*. The ARC's risk management framework is underpinned by five key components: a policy; a plan and toolkit; an operational risk register; a strategic risk register; and a network of risk champions. The framework is reviewed annually by the SMG to facilitate continual improvement.

Results from the 2017 Comcover Risk Management Benchmarking Program found that the ARC continued to achieve an overall risk maturity level of 'Advanced'. The benchmarking program concluded that the ARC had a well-established risk management framework and policy, and risk management was well embedded into business processes.

### **Contribution of risk management to achieving objectives**

The ARC risk management framework is designed to minimise the possibility of loss or damage to operations, staff, property, reputation and assets, while recognising opportunities to meet the stated objectives of the organisation within a good corporate framework.

In July 2016, SMG briefed the ARC Audit Committee on how the ARC identifies and manages its strategic risks. In January 2017, the SMG reviewed the ARC's strategic risks for 2016–17 to ensure that they remained relevant, and that the controls for each risk were still effective and appropriate. Following consultation with senior staff across the agency, and in parallel with strategic and corporate planning activities, the SMG finalised its strategic risks for 2017–18 in June 2017.

The ARC reviewed its operational risks in July 2016 and March 2017. This biannual activity helped ensure that business areas were able to properly plan and deliver against the key activities outlined in the ARC's operational plan.

### **Business continuity and disaster recovery**

The ARC's Business Continuity Plan sets out the controls and contingencies to minimise the likelihood and/or consequence of any potential risk exposure to the core business processes of the ARC. It includes the ARC's ICT Disaster Recovery Plan, which is designed to safeguard and recover critical ICT systems.

In 2016–17, the ARC:

- reviewed and updated the Business Continuity Plan
- held two meetings of the Business Continuity Plan Committee.

## Ethical standards

### ***As a public service agency***

The ARC is committed to high ethical standards. This commitment is promoted through:

- the ARC's guiding principles which include 'accountability through transparent, efficient and effective processes and adherence to ethical standards'
- the incorporation of ethical standards into ARC governance policies and guidelines
- the incorporation of the ARC values into performance agreements
- a page on the ARC intranet site and the Australian Public Service Commission (APSC) Ethics Advisory Service
- an ARC Ethics Contact Officer.

The ARC includes an overview and discussion of the Australian Public Service (APS) Values and Code of Conduct as part of induction training for new appointees. Biannual individual performance reviews provide ongoing opportunities for staff and supervisors to address ethical issues.

Data collected for the *State of the Service Report Census*, conducted by the APSC in 2016, showed that 79 per cent of ARC staff believed that ARC senior executives act in accordance with the APS values, compared to 68 per cent APS wide.

The ARC is committed to preserving public confidence in the integrity, legitimacy, impartiality and fairness of its business. ARC committee members and assessors, as well as any other people undertaking ARC business, must comply with the *ARC Conflict of Interest and Confidentiality Policy*. In 2016–17, the ARC reviewed its *Conflict of Interest and Confidentiality Policy*. It also introduced the use of probity officers for the NCGP assessment meetings.

### ***As a research funding agency***

#### **ARC Research Integrity and Research Misconduct Policy**

To safeguard the integrity of the ARC's processes, the *ARC Research Integrity and Research Misconduct Policy* requires institutions, and in some circumstances individuals engaged in ARC business, to report to the ARC the details of research integrity matters which require a formal inquiry to be undertaken by the institution. It also describes pathways via the ARC through which allegations of integrity breaches can be referred to institutions for investigation.

In 2016–17, the ARC was notified of, or identified, 23 new matters relating to actual or potential research integrity breaches or research misconduct. This included matters reported by institutions as well as concerns identified through ARC business or members of the public. In addition, 13 matters reported in 2015–16 were still active in 2016–17.

Institutional investigations found research integrity breaches and/or research misconduct in 12 of the 36 matters that were active in 2016–17. The other 24 matters include six allegations that have been dismissed, nine investigations that are still underway at the end of 2016–17 and nine matters where either no investigation or reporting to the ARC was required.

### National codes and statements on research ethics

All ARC-funded research projects must conform to the principles outlined in the *Australian Code for the Responsible Conduct of Research (2007)* and where applicable:

- the *National Statement on Ethical Conduct in Human Research (2007)*
- *Values and Ethics: Guidelines for Ethical Conduct in Aboriginal and Torres Strait Islander Health Research (2003)*
- *Australian Institute of Aboriginal and Torres Strait Islander Studies Guidelines for Ethical Research in Australian Indigenous Studies (2012)*
- *Australian Code for the Care and Use of Animals for Scientific Purposes (2013)*.

### Australian Research Integrity Committee

The ARIC is an independent body, jointly established by the ARC and the NHMRC, to provide a system to review institutional processes to investigate allegations of research misconduct. Further information about the ARIC is provided on page 84.

### Service delivery and complaints handling

The ARC sets out the standards of service clients should expect from the ARC in the *ARC Client Service Charter*. In 2016–17, the ARC reviewed and updated the Charter.

The *ARC Complaints Handling and Appeals Policy* helps clients who want to make a general complaint about the ARC or submit an appeal about the administrative processes of the NCGP. In 2016–17, the ARC:

- received no general complaints
- received five appeals relating to proposals submitted for funding under the NCGP. Of the five considered, one appeal was upheld by the NCGP Appeals Committee. Further information on the NCGP Appeals Committee is provided on page 84.

## Senior Executive Service remuneration

Terms and conditions for ARC Senior Executive Service (SES) staff are set out by Common Law Contracts. As at 30 June 2017, there were four Common Law Contracts in place for ARC SES staff.

Remuneration is reviewed annually taking into account the individual's personal skills, knowledge, experience and capabilities as well as achievements against goals set in the preceding performance cycle.

At 30 June 2017, the notional salary range for SES Band 1 and Band 2 officers was between \$160,000 and \$285,000. Further information about executive remuneration is available on the [ARC website](#).

## NON-COMPLIANCE WITH FINANCE LAW

The ARC did not report any significant issues to the Minister under paragraph 19(1)(e) of the PGPA Act that relates to non-compliance with Finance law.

## 5.2 External scrutiny

### JUDICIAL DECISIONS, DECISIONS OF ADMINISTRATIVE TRIBUNALS AND BY THE AUSTRALIAN INFORMATION COMMISSIONER

There were no decisions of any Court during 2016–17 that had, or may have, a significant impact on the operations of the ARC.

There were also no decisions of administrative tribunals or the Office of the Australian Information Commissioner during 2016–17 that had, or may have, a significant impact on the operations of the ARC.

### REPORTS ON ARC OPERATIONS BY THE AUDITOR GENERAL

During 2016–17, the ARC was not directly involved in any performance audits conducted by the Australian National Audit Office (ANAO).

The ARC considered the recommendations arising from a number of performance audits conducted on topics of relevance to the agency including:

- *Corporate planning in the Australian Public Sector*, ANAO Reports No. 6 and No. 54 of 2016–17
- *Cybersecurity follow-up audit*, ANAO Report No. 42 of 2016–17
- *Managing underperformance in the Australian Public Service*, ANAO Report No. 52 of 2016–17
- *Implementation of the Annual Performance Statements requirements 2015–16*, ANAO Report No. 58 of 2016–17.

### REPORTS ON ARC OPERATIONS BY A PARLIAMENTARY COMMITTEE

In March 2017, the Senate Education and Employment Legislation Committee released its report on annual reports for the agencies for which it is responsible—*Annual reports (No. 1 of 2017)*.

The committee assessed all reports presented, including the *ARC Annual Report 2015–16*, as meeting all the requirements under the *Public Governance, Performance and Accountability Rule 2014* (PGPA Rule) relating to the letter of transmittal, inclusion of audit reports, style and formatting, and assessment of performance against targets. The committee noted that all reports did not always satisfactorily meet the plain English criterion. In relation to timeliness of presentation, the committee identified that the ARC did not meet the recommendation that annual reports be tabled before Supplementary Budget Estimates.

The ARC appeared before the Senate Education and Employment Legislation Committee at estimates hearings held in March and May 2017 but was not required to appear at the October 2016 hearings.

The ARC responded to 50 Questions on Notice arising from these hearings. It also provided input to eight Questions on Notice directed to the ARC's portfolio department, the Department of Education and Training.

## REPORTS ON ARC OPERATIONS BY THE COMMONWEALTH OMBUDSMAN

During 2016–17, the Commonwealth Ombudsman’s Office undertook one investigation into ARC business. This investigation involved consideration by the Ombudsman of the assessment of and scores awarded to an unfunded grant proposal, along with allegations of bias.

The Ombudsman found no evidence of bias and concluded that as the ARC’s general grant assessment process was reasonable, there was no requirement for the ARC to reassess the proposal.

## AGENCY CAPABILITY REVIEWS

No capability reviews of the ARC were conducted or released during 2016–17.

# 5.3 Management of human resources

## EFFECTIVENESS IN MANAGING AND DEVELOPING STAFF

### Workforce planning and staff retention and turnover

During 2016–17, the ARC reviewed its priorities for the year and the need for staff in particular areas to support those priorities. The ARC maximised opportunities to develop a flexible and responsive workforce by:

- enabling staff rotations both inside and outside the ARC to support staff development. Inside the ARC, staff were encouraged to help with the Excellence in Research for Australia (ERA) and National Competitive Grants Program (NCGP) processes during peak periods of activity
- providing targeted training opportunities
- providing opportunities for staff to work at higher levels during staff absences
- ensuring relevant knowledge management and sharing processes were in place.

In 2016–17, staff turnover figures were lower than in previous years, with 18 separations recorded compared to 20 in 2015–16. Seven of these separations were for career opportunities both inside and outside the Australian Public Service (APS).

### Employment arrangements

During 2016–17, the ARC employed non-Senior Executive Service staff under the following arrangements:

- the *ARC Enterprise Agreement 2011–14*, until April 2017, when the *ARC Enterprise Agreement 2017–20* came into effect. Under the new Agreement ARC employees will receive a productivity salary increase of two per cent on commencement, two per cent 12 months after commencement, and two per cent 24 months after commencement
- Australian Workplace Agreements (AWAs). AWAs were formalised individual agreements negotiated by the employer and employee. Changes to the *Workplace Relations Act 1996* stipulated that no new AWA could be entered into on or after 13 February 2008. The ARC has a small number of staff on AWAs that were negotiated before those changes were enacted
- Individual Flexibility Arrangements (IFA). Employees covered by the *ARC Enterprise Agreement 2017–2020* may agree to make an IFA to vary the effect of terms of the agreement. IFAs within the ARC generally deal with retention allowances or remuneration, allowing the Chief Executive Officer (CEO) to remunerate specialised employees based on market forces and experience.

### Training and development

ARC training and development activities are conducted within the framework of its *Learning and Development Strategy 2014–17*. The strategy aims to ensure that all employees have access to appropriate training opportunities to ensure the organisation has the right skills and knowledge to achieve its objectives.

In the 2016 State of the Service Census, 85 per cent of ARC staff indicated that they believed the ARC provided access to effective learning and development opportunities compared to 63 per cent for the APS.

In 2016–17, the People and Services Section coordinated access for ARC staff to a range of training opportunities including in-house training as well as external opportunities such as coaching and studies assistance.

### ***In-house training***

During the year, all employees were required to undertake mandatory eLearning modules. The modules included:

- Difficult Conversations in the Workplace (for employees)
- Difficult Conversations in the Workplace (for managers)
- Public Interest Disclosures
- Public Interest Disclosures (for managers)
- Respectful Workplaces
- Keep the Knowledge
- Legal Requirements: Managing Digital Information and Records
- What is Open Data?
- Compelling Communication
- Introduction to Digital Records
- CORE Cultural Learning: Aboriginal and Torres Strait Islander Australia.

All new staff were required to undertake four eLearning modules: APS Values and Principles, Security, Privacy Awareness, and Fraud Awareness.

The ARC also provided in-house training to staff on ARC Staff Induction, Improving Analytical and Critical Thinking, Engaging Stakeholders, and Creative Thinking at Work.

## **Work health and safety performance**

The ARC's workplace health and safety arrangements, provided in accordance with Schedule 2, Part 4 of the *Work Health and Safety Act 2011*, are reported in Appendix 5.

## **Productivity gains**

During 2016–17, the ARC continued to review its procedures with a view to streamlining administrative processes and systems for ARC staff as well as for clients of the ARC's NCGP and ERA. In addition the ARC:

- implemented a new intranet
- enabled additional reporting under the agency's online governance enterprise system
- implemented a number of initiatives arising from Innovation Month suggestions including a streamlining of internal communication mechanisms.

As a result of Innovation Month the ARC's Senior Management Group also agreed that staff conflict of interest disclosures should be collected online in the future. This change will be implemented in 2017–18.

## STAFF STATISTICS

### Overview

**Table 6: Employment performance (at 30 June 2016 and 2017)**

INDICATOR	2016 (NO.)	2017 (NO.)
Total workforce	127	133
Full-time workforce	109	110
Part-time workforce	18	22
Women	90	97
Men	37	36
Identified as Aboriginal and Torres Strait Islander Peoples	0	0

### Classification level

**Table 7: Number of staff by substantive classification level (at 30 June 2016 and 2017)**

CLASSIFICATION	ONGOING 2016	ONGOING 2017	NON-ONGOING 2016	NON-ONGOING 2017
SES	3	2	3	2
Executive Level 2	19	17	0	0
Executive Level 1	41	42	1	1
APS6 (ARC Level 3)	25	29	1	2
APS4-5 (ARC Level 2)	27	35	5	1
APS1-3 (ARC Level 1)	1	1	0	1
Total	116	126	10	7

## Full-time/part-time employment arrangements

**Table 8: Number of staff by full-time/part-time employment arrangements (at 30 June 2016 and 2017)**

CLASSIFICATION	ONGOING 2016	ONGOING 2017	NON-ONGOING 2016	NON-ONGOING 2017
<b>FULL-TIME</b>				
SES	3	2	2	1
Executive Level 2	17	16	0	0
Executive Level 1	33	36	1	1
APS6 (ARC Level 3)	21	23	1	2
APS4-5 (ARC Level 2)	23	28	5	1
APS1-3 (ARC Level 1)	1	0	0	1
Total	98	105	9	6
<b>PART-TIME</b>				
SES	0	0	1	1
Executive Level 2	2	1	0	0
Executive Level 1	8	6	0	0
APS6 (ARC Level 3)	4	6	0	0
APS4-5 (ARC Level 2)	4	7	0	0
APS1-3 (ARC Level 1)	0	1	0	0
Total	18	21	1	1

## Gender

**Table 9: Number of staff by gender (at 30 June 2016 and 2017)**

CLASSIFICATION	ONGOING 2016	ONGOING 2017	NON-ONGOING 2016	NON-ONGOING 2017
<b>FEMALE</b>				
SES	3	2	2	1
Executive Level 2	12	11	0	0
Executive Level 1	24	27	1	1
APS6 (ARC Level 3)	22	23	0	1
APS4-5 (ARC Level 2)	20	28	5	1
APS1-3 (ARC Level 1)	1	1	0	1
Total	82	92	8	5
<b>MALE</b>				
SES	0	0	1	1
Executive Level 2	7	6	0	0
Executive Level 1	17	15	0	0
APS6 (ARC Level 3)	7	6	1	1
APS4-5 (ARC Level 2)	3	7	0	0
APS1-3 (ARC Level 1)	0	0	0	0
Total	34	34	2	2

## By physical location

All ARC staff are located in Canberra.

## Identify as Aboriginal and Torres Strait Islander

The ARC has no staff members who identify as being Aboriginal and Torres Strait Islander.

## DIVERSITY

The *ARC Workforce Diversity Program 2015–19* provides the framework for a number of diversity plans and policies including the *Multicultural Access and Equity Plan*, *Discrimination and Harassment-free Workplace Policy*, and *Reconciliation Action Plan*.

In 2016–17:

- all ARC staff completed eLearning modules on Cultural Awareness
- the ARC Diversity Working Group met to discuss diversity ideas and progress against commitments in the Diversity Program. The Diversity Working Group brings together a diverse range of ARC employees including but not limited to: Aboriginal and Torres Strait Islander peoples as well as an Indigenous Champion and Diversity Champion.
- the ARC released its *Multicultural Access and Equity Plan 2017–2019*
- the ARC participated in NAIDOC week activities. A number of staff represented the agency in the NAIDOC Touch Football Carnival
- the ARC celebrated Harmony Day, a day celebrated around Australia on 21 March each year to help all Australians celebrate cultural diversity. At an all staff lunch event held on that day, staff brought share plates of food representing their culture, family background, or country they love to visit
- the ARC continued to publicise the annual R U OK? Day celebrations. This is a dedicated day to remind people to ask family, friends and colleagues the question, “R U OK?”, in a meaningful way
- the ARC continued to promote the use of the Employee Assistance Program, including to new employees.

## EMPLOYMENT ARRANGEMENTS

### Number of staff

The number of ARC staff covered by the different employment arrangements are outlined in Table 10 below. At 30 June 2017 all non-SES staff were covered by the ARC Enterprise Agreement.

Note that the figures in Table 10 exclude the CEO and will result in double counting if added because non-SES employees with an IFA are also covered by the ARC Enterprise Agreement. As a result, the total number of agreements is higher than the total number of staff by the number of IFAs.

**Table 10: Number of staff by employment arrangement (at 30 June 2016 and 2017)**

EMPLOYMENT ARRANGEMENT	STAFF	2016 (NO.)	2017 (NO.)
ARC Enterprise Agreement	SES	n/a	n/a
ARC Enterprise Agreement	Non-SES	121	129
Australian Workplace Agreements	SES	0	0
Australian Workplace Agreements	Non-SES	3	3
Individual Flexibility Arrangements	SES	0	0
Individual Flexibility Arrangements	Non-SES	14	16

## Salary ranges

The salary ranges for non-SES staff are provided in Table 11 below. The ranges reflect the full span of salaries available under the ARC Enterprise Agreement, AWAs, and IFAs.

**Table 11: Salary ranges of non-SES staff by classification level (at 30 June 2017)**

CLASSIFICATION LEVEL	SALARY RANGE (\$)
Executive Level 2	116,702–181,305
Executive Level 1	97,262–140,000
APS6	76,150–88,197
APS5	68,780–72,685
APS4	63,310–66,904
APS3	56,316–59,512
APS2	50,426–54,780
APS1	46,645–47,838

Section 5.1 provides information on SES remuneration (page 89).

## Non-salary benefits

The ARC offered a range of non-salary benefits to employees in 2016–17 including:

- flu vaccinations
- a health allowance
- superannuation advice
- access to salary packaging arrangements
- access to the Employee Assistance Program.

## PERFORMANCE PAY

The ARC does not provide performance pay or performance-based bonuses.

## 5.4 Assets management

The ARC does not have any significant asset holdings.

The ARC's assets include office fit-out, furniture, IT software and 'portable and attractive' equipment held at the ARC office.

The ARC reviews its asset holdings annually to ensure cost effectiveness and whole-of-life utilisation. In 2016–17, the ARC conducted its annual stocktake in March 2017 and undertook a full revaluation of its fixed assets.

## 5.5 Purchasing

The ARC's approach to purchasing is consistent with the *Commonwealth Procurement Rules*. The *Commonwealth Procurement Rules* represent the Australian Government's policy framework under which agencies govern and undertake procurement. The key rules are:

- value for money
- encouraging competition
- efficient, effective, economical and ethical procurement
- accountability and transparency in procurement
- procurement risk
- procurement method.

Detailed policy and procedures relating to procurement are also set out in the *ARC Accountable Authority Instructions* and other specific policy and procedure guides (such as those for travel and use of Commonwealth credit cards), all of which are reviewed periodically and updated as required.

The Finance Section has overall responsibility for procurement within the ARC. Finance Section staff provide information and training about procurement policies and procedures as required.

The ARC publishes information on proposed procurements in the ARC's procurement plan, available from the AusTender website: [www.tenders.gov.au](http://www.tenders.gov.au). This plan gives potential suppliers early notice of significant planned procurements for the coming year. All procurements over \$10,000 are published on AusTender.

## 5.6 Consultants

### EXPENDITURE

During 2016–17, 184 new consultancy contracts were entered into involving total actual expenditure of \$4.6 million (inclusive of Goods and Services Tax (GST)). In addition, 150 ongoing consultancy contracts were active during the period, involving total actual expenditure of \$2.8 million (inclusive of GST).

ARC expenditure on consultancy contracts (excluding GST) in the past three years was:

- in 2014–15: \$2.7 million
- in 2015–16: \$3.3 million
- in 2016–17: \$2.8 million.

Annual reports contain information about actual expenditure on contracts for consultancies. Information on the value of contracts and consultancies is available on the AusTender website.

### POLICY ON SELECTION AND ENGAGEMENT

The ARC's policy on selecting and engaging consultants is set out in the *ARC Accountable Authority Instructions* and in related procurement instructions and guidance material.

The ARC engages consultants primarily where there is a need for independent research or assessment or where a specialist skill or expertise is required. Consultants are engaged through a merit selection or procurement process. The majority of ARC consultancy expenditure is for the engagement of independent members of the ARC's selection and evaluation committees.

Consultancy services are distinguished from other contracts for services by the nature of the work performed, which typically involves the development of an intellectual output that assists with agency decision-making and reflects the independent views of the service provider. By contrast, other (non-consultancy) contracts for services are typically far more restrictive in the degree of latitude afforded to the contractor.

# 5.7 Australian National Audit Office access clauses and exempt contracts

## AUSTRALIAN NATIONAL AUDIT OFFICE ACCESS CLAUSES

All contracts let for goods and services during the reporting period of \$100,000 or more (inclusive of Goods and Services Tax (GST)) provided for the Auditor-General to have access to the contractor's premises.

## EXEMPT CONTRACTS

The ARC Chief Executive Officer did not exempt any contracts from publication on the AusTender website during the reporting period.

## 5.8 Procurement initiatives to support small business

The ARC supports small business participation in the Commonwealth Government procurement market. Small and medium enterprises (SMEs) and small enterprise participation statistics are available on the Department of Finance website: [www.finance.gov.au/procurement/statistics-on-commonwealth-purchasing-contracts/](http://www.finance.gov.au/procurement/statistics-on-commonwealth-purchasing-contracts/).

The ARC incorporates a number of procurement practices to support SMEs, including:

- the use of standard contract templates with clear and simple language
- electronic payment systems to facilitate on-time payment.

The ARC recognises the importance of ensuring that small businesses are paid on time. The results of the Australian Government Pay On-Time Survey are available on Treasury's website.

## 5.9 Other mandatory information

### ADVERTISING CAMPAIGNS

During 2016–17, the ARC conducted no advertising campaigns. Additional information on advertising and market research as required under the *Commonwealth Electoral Act 1918* is provided in Appendix 5.

### GRANT PROGRAMS

Information on grants awarded by the ARC during the period 1 July 2016 to 30 June 2017 is available on the [ARC website](#).

### DISABILITY REPORTING MECHANISM

Since 1994, Commonwealth departments and agencies have reported on their performance as policy adviser, purchaser, employer, regulator and provider under the Commonwealth Disability Strategy. In 2007–08, reporting on the employer role was transferred to the Australian Public Service Commission's (APSC) State of the Service reports and the *APS Statistical Bulletin*. These reports are available on the APSC website: [www.apsc.gov.au](http://www.apsc.gov.au). From 2010–11, entities have no longer been required to report on these functions.

The Commonwealth Disability Strategy has been overtaken by the *National Disability Strategy 2010–2020*, which sets out a 10-year national policy framework to improve the lives of people with disability, promote participation and create a more inclusive society. A high-level, two-yearly report will track progress against each of the six outcome areas of the strategy and present a picture of how people with disability are faring. The first of these reports was published in 2014, and can be found at [www.dss.gov.au](http://www.dss.gov.au).

### INFORMATION PUBLICATION SCHEME

Entities subject to the *Freedom of Information Act 1982* (FOI Act) are required to publish information to the public as part of the Information Publication Scheme (IPS). This requirement is in Part II of the FOI Act and has replaced the former requirement to publish a section 8 statement in an annual report. Each agency must display on its website a plan showing what information it publishes in accordance with the IPS requirements.

ARC information relating to the IPS is published on the [ARC website](#) at [www.arc.gov.au/information-publication-scheme](http://www.arc.gov.au/information-publication-scheme).

## CORRECTION OF INFORMATION PUBLISHED IN PREVIOUS ANNUAL REPORTS

The ARC identified the following error in the *ARC Annual Report 2015–16*.

The last dot point on page 73 says ‘Across all schemes, the participation rates for women were lower than the rates of men, ranging from 16 per cent for Industrial Transformation Training Centres to 57 per cent for Discovery Indigenous’. The sentence should read ‘Across all schemes except Discovery Indigenous, the participation rates for women were lower than the rates of men’.

## INFORMATION REQUIRED BY OTHER LEGISLATION

Information required by other legislation is provided in Appendix 5 including:

- work health and safety (Schedule 2, Part 4 of the *Work Health and Safety Act 2011*)
- advertising and market research (section 311A of the *Commonwealth Electoral Act 1918*)
- ecologically sustainable development and environmental performance (section 516A of the *Environment Protection and Biodiversity Conservation Act 1999*).

The ARC is not defined as a ‘public service care agency’ and has no obligations under the *Carer Recognition Act 2010*.



# PART 6 FINANCIAL STATEMENTS

## 6.1 Financial Statements

---

108

# 6.1 Financial statements

This section provides:

- the Auditor's report
- the ARC financial statements for the financial period ended 30 June 2017.



## INDEPENDENT AUDITOR'S REPORT

To the Minister for Education and Training

### Opinion

In my opinion, the financial statements of the Australian Research Council for the year ended 30 June 2017:

- (a) comply with Australian Accounting Standards – Reduced Disclosure Requirements and the *Public Governance, Performance and Accountability (Financial Reporting) Rule 2015*; and
- (b) present fairly the financial position of the Australian Research Council as at 30 June 2017 and its financial performance and cash flows for the year then ended.

The financial statements of the Australian Research Council, which I have audited, comprise the following statements as at 30 June 2017 and for the year then ended:

- Statement by the Accountable Authority and Chief Finance Officer;
- Statement of Comprehensive Income;
- Statement of Financial Position;
- Statement of Changes in Equity;
- Cash Flow Statement;
- Administered Schedule of Comprehensive Income;
- Administered Schedule of Assets and Liabilities;
- Administered Reconciliation Schedule;
- Administered Cash Flow Statement; and
- Notes to the financial statements, comprising a summary of significant accounting policies and other explanatory information.

### Basis for Opinion

I conducted my audit in accordance with the Australian National Audit Office Auditing Standards, which incorporate the Australian Auditing Standards. My responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Statements* section of my report. I am independent of the Australian Research Council in accordance with the relevant ethical requirements for financial statement audits conducted by the Auditor-General and his delegates. These include the relevant independence requirements of the Accounting Professional and Ethical Standards Board's APES 110 *Code of Ethics for Professional Accountants* to the extent that they are not in conflict with the *Auditor-General Act 1997* (the Code). I have also fulfilled my other responsibilities in accordance with the Code. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

### Accountable Authority's Responsibility for the Financial Statements

As the Accountable Authority of the Australian Research Council the Chief Executive Officer is responsible under the *Public Governance, Performance and Accountability Act 2013* for the preparation and fair presentation of annual financial statements that comply with Australian Accounting Standards – Reduced Disclosure Requirements and the rules made under that Act. The Chief Executive Officer is also responsible for such internal control as the Chief Executive Officer determines is necessary to enable the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Chief Executive Officer is responsible for assessing the Australian Research Council ability to continue as a going concern, taking into account whether the entity's operations will cease as a result of an administrative restructure or for any other reason. The Chief Executive Officer is also responsible for disclosing matters related to going concern as applicable and using the going concern basis of accounting unless the assessment indicates that it is not appropriate.

GPO Box 707 CANBERRA ACT 2601  
19 National Circuit BARTON ACT  
Phone (02) 6203 7300 Fax (02) 6203 7777

### **Auditor's Responsibilities for the Audit of the Financial Statements**

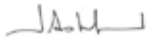
My objective is to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes my opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the Australian National Audit Office Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

As part of an audit in accordance with the Australian National Audit Office Auditing Standards, I exercise professional judgement and maintain professional scepticism throughout the audit. I also:

- identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;
- obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control;
- evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Accountable Authority;
- conclude on the appropriateness of the Accountable Authority's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the entity's ability to continue as a going concern. If I conclude that a material uncertainty exists, I am required to draw attention in my auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify my opinion. My conclusions are based on the audit evidence obtained up to the date of my auditor's report. However, future events or conditions may cause the entity to cease to continue as a going concern; and
- evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

I communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that I identify during my audit.

Australian National Audit Office



Jocelyn Ashford

Delegate of the Auditor-General

Canberra

6 September 2017

# CONTENTS

## Certification

## Primary financial statement

- Statement of Comprehensive Income
- Statement of Financial Position
- Statement of Changes in Equity
- Cash Flow Statement
- Administered Schedule of Comprehensive Income
- Administered Schedule of Assets and Liabilities
- Administered Reconciliation Schedule
- Administered Cash Flow Statement

## Overview

## Notes to the financial statements

### 1. Departmental Financial Performance

- 1.1 Expenses
- 1.2 Own-Source Revenue and Gains

### 2. Income and Expenses Administered on Behalf of Government

- 2.1 Administered - Expenses
- 2.2 Administered - Income

### 3. Departmental Financial Position

- 3.1 Financial Assets
- 3.2 Non-Financial Assets
- 3.3 Payables
- 3.4 Interest Bearing Liabilities
- 3.5 Other Provisions

### 4. Assets and Liabilities Administered on Behalf of Government

- 4.1 Administered - Financial Assets
- 4.2 Administered - Non-Financial Assets
- 4.3 Administered - Payables

### 5. Funding

- 5.1 Appropriations
- 5.2 Special Account
- 5.3 Net Cash Appropriation Arrangements

### 6. People and relationships

- 6.1 Employee Provisions
- 6.2 Key Management Personnel Remuneration
- 6.3 Related Party Disclosures


### 7. Managing uncertainties

- 7.1 Contingent Assets and Liabilities
- 7.2 Financial Instruments
- 7.3 Administered - Financial Instruments
- 7.4 Fair Value Measurement
- 7.5 Administered - Fair Value Measurement

**Australian Research Council**  
**Statement by the Accountable Authority and Chief Financial Officer**

In our opinion, the attached financial statements for the year ended 30 June 2017 comply with subsection 42(2) of the *Public Governance, Performance and Accountability Act 2013* (PGPA Act), and are based on properly maintained financial records as per subsection 41(2) of the PGPA Act.

In our opinion, at the date of this statement, there are reasonable grounds to believe that the Australian Research Council (ARC) will be able to pay its debts as and when they fall due.

Signed.....

Sue Thomas  
Chief Executive Officer

5 September 2017

Signed.....

Luke Cattle  
Acting Chief Financial Officer

5 September 2017

**Australian Research Council**  
**Statement of Comprehensive Income**  
*for the period ended 30 June 2017*

	Notes	2017 \$'000	2016 \$'000	Original Budget \$'000
<b>NET COST OF SERVICES</b>				
<b>Expenses</b>				
Employee benefits	1.1A	13,855	14,306	14,040
Suppliers <sup>1</sup>	1.1B	4,421	4,111	7,643
Depreciation and amortisation	3.2A	3,645	7,389	4,497
Finance costs	1.1C	300	342	244
Write-down and impairment of assets		3	1	-
<b>Total expenses</b>		<b>22,224</b>	<b>26,149</b>	<b>26,424</b>
<b>Own-source income</b>				
<b>Own-source revenue</b>				
Other revenue		92	68	88
<b>Total own-source revenue</b>		<b>92</b>	<b>68</b>	<b>88</b>
<b>Gains</b>				
Gains from sale of assets		28	-	-
<b>Total gains</b>		<b>28</b>	<b>-</b>	<b>-</b>
<b>Total own-source income</b>		<b>120</b>	<b>68</b>	<b>88</b>
<b>Net (cost of)/contribution by services</b>		<b>(22,104)</b>	<b>(26,081)</b>	<b>(26,336)</b>
Revenue from government	1.2A	21,839	21,017	21,839
<b>Surplus/(Deficit) on continuing operations</b>		<b>(265)</b>	<b>(5,064)</b>	<b>(4,497)</b>

The above statement should be read in conjunction with the accompanying notes.

This statement represents the operating result for outcome 1. The ARC only has one outcome which is 'Growth of knowledge and innovation through managing research funding schemes, measuring research excellence and providing advice.'

**Budget Variances Commentary**

The following commentary provides a comparison of the original budget as presented in the 2016-17 Portfolio Budget Statements (PBS) to the 2016-17 actuals.

Variances are considered to be material or major based on the following criteria:

- the variance between original budget and actual is greater than 2 million dollars of the line item; or
- the variance between original budget and actual is greater than 2 million dollars of total expenses, total income; assets, liabilities or equity; or
- an item below this threshold is considered important for the reader's understanding or is relevant to an assessment of the ARC's performance.

**Statement of Comprehensive Income**

1. The suppliers expense variance arose mainly due to:

- less expenditure than forecast for the Information, Communication and Technology (ICT) resulting from new and competing priorities due to planned delays in the redevelopment of the System to Evaluate the Excellence of Research (SEER), for the Excellence in Research for Australia (ERA) evaluation and the Engagement and Impact (E&I) assessment, this is consistent with delays in capital expenditure.
- less committee costs due to less face to face committee meetings resulted in lower travel and venue costs and reduced committee member fees in 2016-17.
- Departmental funding allocated for the Innovation and Science Agenda – E&I assessment in the ERA program. ERA program expenditure is driven by the timing and sequencing of when events can be held. The timing of E&I assessment later than originally anticipated which has resulted in approximately \$1 million less expenditure in 2016-17.

**Australian Research Council**  
**Statement of Financial Position**  
*as at 30 June 2017*

	Notes	2017 \$'000	2016 \$'000	Original Budget \$'000
<b>ASSETS</b>				
<b>Financial assets</b>				
Cash and cash equivalents	3.1A	467	305	295
Trade and other receivables <sup>1</sup>	3.1B	19,430	14,373	11,003
<b>Total financial assets</b>		<b>19,897</b>	<b>14,678</b>	<b>11,298</b>
<b>Non-financial assets</b>				
Buildings	3.2A	1,803	2,027	1,649
Plant and equipment	3.2A	938	922	267
Computer software <sup>2</sup>	3.2A	10,904	11,692	16,721
Prepayments		360	275	292
<b>Total non-financial assets</b>		<b>14,005</b>	<b>14,916</b>	<b>18,929</b>
<b>Total assets</b>		<b>33,902</b>	<b>29,594</b>	<b>30,227</b>
<b>LIABILITIES</b>				
<b>Payables</b>				
Suppliers	3.3A	457	405	483
Other payables		109	54	-
<b>Total payables</b>		<b>566</b>	<b>459</b>	<b>483</b>
<b>Interest bearing liabilities</b>				
Finance leases	3.4A	2,715	3,026	2,452
<b>Total interest bearing liabilities</b>		<b>2,715</b>	<b>3,026</b>	<b>2,452</b>
<b>Provisions</b>				
Employee provisions	6.1A	3,979	3,996	3,880
Other provisions	3.5A	324	333	267
<b>Total provisions</b>		<b>4,303</b>	<b>4,329</b>	<b>4,147</b>
<b>Total liabilities</b>		<b>7,584</b>	<b>7,814</b>	<b>7,082</b>
<b>Net assets</b>		<b>26,318</b>	<b>21,780</b>	<b>23,145</b>
<b>EQUITY</b>				
Contributed equity		34,374	29,587	34,374
Asset revaluation reserve		59	43	43
Accumulated deficit <sup>3</sup>		(8,115)	(7,850)	(11,272)
<b>Total equity</b>		<b>26,318</b>	<b>21,780</b>	<b>23,145</b>

The above statement should be read in conjunction with the accompanying notes.

This statement represents the financial position of outcome 1. The ARC only has one outcome which is 'Growth of knowledge and innovation through managing research funding schemes, measuring research excellence and providing advice.'

**Budget Variances Commentary**

The following commentary provides a comparison of the original budget as presented in the 2016-17 Portfolio Budget Statements (PBS) to the 2016-17 actuals.

Variances are considered to be material or major based on the following criteria:

- the variance between original budget and actual is greater than 2 million dollars of the line item; or
- the variance between original budget and actual is greater than 2 million dollars of total expenses, total income; assets, liabilities or equity; or
- an item below this threshold is considered important for the reader's understanding or is relevant to an assessment of the ARC's performance.

**Statement of Financial Position**

1. The variance arose mainly due to the departmental budgets being prepared on the assumption that all operating and capital expenditure will be expensed within the financial year. As a result any actual surpluses or deficits are reflected in the appropriation receivable balance. The increase in 2016-17 is the result of the operating surplus and delays in the recognition of capital expenditure.

2. Computer software is less than the forecasted net value due to accelerated depreciation in 2015-16 for replaced internally developed software (as detailed in the 2015-16 Financial Statements). In addition, capital expenditure on internally developed assets for the Research Management System (RMS) and SEER was less than the allocated budget due to planned delays in the redevelopment of SEER resulting from new and competing priorities. Capital development is continuing and will be utilised in full in future reporting periods.

3. This increase in Accumulated deficit is linked to the supplier expense variation provided in the Statement of Comprehensive Income.

**Australian Research Council**  
**Statement of Changes in Equity**  
*for the period ended 30 June 2017*

	2017 \$'000	2016 \$'000	Original Budget \$'000
<b>CONTRIBUTED EQUITY</b>			
<b>Opening balance</b>			
Balance carried forward from previous period	29,587	25,762	29,587
<b>Transactions with owners</b>			
<b>Contributions by owners</b>			
Equity injection - appropriations	3,536	2,572	3,536
Departmental capital budget	1,251	1,253	1,251
<b>Total transactions with owners</b>	<b>4,787</b>	<b>3,825</b>	<b>4,787</b>
<b>Closing balance as at 30 June</b>	<b>34,374</b>	<b>29,587</b>	<b>34,374</b>
<b>ACCUMULATED DEFICIT</b>			
<b>Opening balance</b>			
Balance carried forward from previous period	(7,850)	(2,786)	( 6,775)
<b>Comprehensive income</b>			
Surplus/(Deficit) for the period	(265)	(5,064)	( 4,497)
<b>Closing balance as at 30 June</b>	<b>(8,115)</b>	<b>(7,850)</b>	<b>( 11,272)</b>
<b>ASSET REVALUATION RESERVE</b>			
<b>Opening balance</b>			
Balance carried forward from previous period	43	43	43
<b>Asset Revaluation</b>			
Change in the measurement of provision to make good	16	-	-
<b>Closing balance as at 30 June</b>	<b>59</b>	<b>43</b>	<b>43</b>
<b>TOTAL EQUITY</b>			
<b>Opening balance</b>			
Balance carried forward from previous period	21,780	23,019	22,855
<b>Comprehensive income</b>			
Surplus/(Deficit) for the period	(265)	(5,064)	( 4,497)
<b>Total comprehensive income</b>	<b>(265)</b>	<b>(5,064)</b>	<b>( 4,497)</b>
<b>Asset Revaluation</b>			
Change in the measurement of provision to make good	16	-	-
<b>Total asset revaluation</b>	<b>16</b>	<b>-</b>	<b>-</b>
<b>Transactions with owners</b>			
<b>Contributions by owners</b>			
Equity injection - appropriations	3,536	2,572	3,536
Departmental capital budget	1,251	1,253	1,251
<b>Total transactions with owners</b>	<b>4,787</b>	<b>3,825</b>	<b>4,787</b>
<b>Closing balance as at 30 June</b>	<b>26,318</b>	<b>21,780</b>	<b>23,145</b>

The above statement should be read in conjunction with the accompanying notes.

**Accounting Policy**

*Equity Injections*

Amounts appropriated which are designated as 'equity injections' for a year (less formal reductions) and Departmental Capital Budgets (DCBs) are recognised directly in contributed equity in that year.

**Australian Research Council**

**Cash Flow Statement**

for the period ended 30 June 2017

	Notes	2017 \$'000	2016 \$'000	Original Budget \$'000
<b>OPERATING ACTIVITIES</b>				
<b>Cash received</b>				
Appropriations		19,013	17,900	22,709
Sale of goods and rendering of services		9	-	-
Net GST received		720	714	550
Other		366	321	-
<b>Total cash received</b>		<b>20,108</b>	<b>18,935</b>	<b>23,259</b>
<b>Cash used</b>				
Employees		14,241	14,490	14,040
Suppliers		4,598	4,211	7,555
Net GST paid		722	681	550
Section 74 receipts transferred to Official Public Account (OPA)		9	-	-
Other		293	276	244
<b>Total cash used</b>		<b>19,863</b>	<b>19,658</b>	<b>22,389</b>
<b>Net cash from/(used by) operating activities</b>		<b>245</b>	<b>(723)</b>	<b>870</b>
<b>INVESTING ACTIVITIES</b>				
<b>Cash used</b>				
Purchase of property, plant and equipment		236	43	250
Purchase of intangibles		2,177	2,539	4,537
<b>Total cash used</b>		<b>2,413</b>	<b>2,582</b>	<b>4,787</b>
<b>Net cash from/(used by) investing activities</b>		<b>(2,413)</b>	<b>(2,582)</b>	<b>(4,787)</b>
<b>FINANCING ACTIVITIES</b>				
<b>Cash received</b>				
Contributed equity		2,641	3,506	3,917
<b>Total cash received</b>		<b>2,641</b>	<b>3,506</b>	<b>3,917</b>
<b>Cash used</b>				
Repayment of finance leases		311	191	-
<b>Total cash used</b>		<b>311</b>	<b>191</b>	<b>-</b>
<b>Net cash from/(used by) financing activities</b>		<b>2,330</b>	<b>3,315</b>	<b>3,917</b>
<b>Net increase/(decrease) in cash held</b>		<b>162</b>	<b>10</b>	<b>-</b>
Cash and cash equivalents at the beginning of the reporting period		<b>305</b>	<b>295</b>	<b>295</b>
<b>Cash and cash equivalents at the end of the reporting period</b>	3.1A	<b>467</b>	<b>305</b>	<b>295</b>

The above statement should be read in conjunction with the accompanying notes.

**Australian Research Council**  
**Administered Schedule of Comprehensive Income**  
for the period ended 30 June 2017

	Notes	2017 \$'000	2016 \$'000	Original Budget \$'000
<b>NET COST OF SERVICES</b>				
<b>Expenses</b>				
Suppliers <sup>1</sup>	2.1A	13,153	14,025	6,915
Grants <sup>2</sup>	2.1B	746,418	756,525	744,363
<b>Total expenses</b>		<b>759,571</b>	<b>770,550</b>	<b>751,278</b>
<b>Income</b>				
<b>Revenue</b>				
<b>Non-taxation revenue</b>				
Other revenue <sup>3</sup>	2.2A	10,185	6,501	-
<b>Total non-taxation revenue</b>		<b>10,185</b>	<b>6,501</b>	<b>-</b>
<b>Total revenue</b>		<b>10,185</b>	<b>6,501</b>	<b>-</b>
<b>Net (cost of)/contribution by services</b>		<b>(749,386)</b>	<b>(764,049)</b>	<b>(751,278)</b>
<b>Surplus/(Deficit)</b>		<b>(749,386)</b>	<b>(764,049)</b>	<b>(751,278)</b>
<b>Total comprehensive income/(loss)</b>		<b>(749,386)</b>	<b>(764,049)</b>	<b>(751,278)</b>

The above schedule should be read in conjunction with the accompanying notes.

This statement represents the result for outcome 1. The ARC only has one outcome which is 'Growth of knowledge and innovation through managing research funding schemes, measuring research excellence and providing advice.'

**Budget Variances Commentary**

The following commentary provides a comparison of the original budget as presented in the 2016-17 Portfolio Budget Statements (PBS) to the 2016-17 actuals.

Variances are considered to be material or major based on the following criteria:

- the variance between original budget and actual is greater than 2 million dollars of the line item; or
- the variance between original budget and actual is greater than 2 million dollars of total expenses, total income; assets, liabilities or equity; or
- an item below this threshold is considered important for the reader's understanding or is relevant to an assessment of the ARC's performance.

**Schedule of Comprehensive Income**

1. Supplier expenditure was greater than budgeted mainly due to an expense classification difference. \$9 million of expenditure relating to the Boosting Dementia Research Initiative measure was budgeted against grants. However, under section 76 of the PGPA Act this payment is treated as a notional payment as it was paid to another non-corporate Commonwealth entity and therefore this has to be recognised as a supplier expense. This amount was offset by a \$2.8 million for under expense relating to the ERA program. The ERA program expenditure is driven by the timing and sequencing of when events can be held. Timing of these events is later than originally anticipated.

2. Grant expenses and the movement of grant liabilities are budgeted so that the appropriations and cash expenditure for the financial year match the expense. This has historically been used as the best estimate of expenses to be recognised in each financial year.

At the beginning of the calendar year, when the education sector reporting period commences, the ARC recognises the commitment and the associated liability relating to the National Competitive Grants Program (NCGP) for the whole of the current calendar year. The result is that the expense is a commitment, of which part will not be paid until the second half of the calendar year, which is also in the next financial year. The estimated funding for NCGP increases in 2017-18, resulting in increased funding for 2017, and therefore the 2016-17 actual expenses are higher than budgeted.

3. Other revenue arose from the recovery of prior year unspent grant payments returned by the research sector. Under the *Australian Research Council Act 2001*, grant recipients are required to return unspent grant money to the ARC unless otherwise approved. The amount of returns is not predictable as it is contingent on activities in the research sector and as a result it is difficult to derive a reliable budget amount but the returned amount was not material in relation to the amount of grants provided.

**Australian Research Council**  
**Administered Schedule of Assets and Liabilities**  
*as at 30 June 2017*

	Notes	2017 \$'000	2016 \$'000	Original Budget \$'000
<b>ASSETS</b>				
<b>Financial assets</b>				
Trade and other receivables	4.1A	135	486	490
<b>Total financial assets</b>		<b>135</b>	<b>486</b>	<b>490</b>
<b>Non-financial assets</b>				
Prepayments	4.2A	12	12	192
<b>Total non-financial assets</b>		<b>12</b>	<b>12</b>	<b>192</b>
<b>Total assets administered on behalf of Government</b>		<b>147</b>	<b>498</b>	<b>682</b>
<b>LIABILITIES</b>				
<b>Payables</b>				
Grants <sup>1</sup>	4.3A	308,898	296,908	348,764
Other payables	4.3B	1,144	88	1,417
<b>Total payables</b>		<b>310,042</b>	<b>296,996</b>	<b>350,181</b>
<b>Total liabilities administered on behalf of Government</b>		<b>310,042</b>	<b>296,996</b>	<b>350,181</b>
<b>Net assets/(liabilities)</b>		<b>(309,895)</b>	<b>(296,498)</b>	<b>(349,499)</b>

The above schedule should be read in conjunction with the accompanying notes.

This statement represents the result for outcome 1. The ARC only has one outcome which is 'Growth of knowledge and innovation through managing research funding schemes, measuring research excellence and providing advice.'

#### Budget Variances Commentary

The following commentary provides a comparison of the original budget as presented in the 2016-17 Portfolio Budget Statements (PBS) to the 2016-17 actuals.

Variances are considered to be material or major based on the following criteria:

- the variance between original budget and actual is greater than 2 million dollars of the line item; or
- the variance between original budget and actual is greater than 2 million dollars of total expenses, total income; assets, liabilities or equity; or
- an item below this threshold is considered important for the reader's understanding or is relevant to an assessment of the ARC's performance.

#### Schedule of Assets and Liabilities

1. The majority of the variation from budget relates to movements in the grant liability in 2015-16 subsequent to preparation of the 2016-17 budget, which impacted the budgeted opening liability balance by \$50m. This is offset by approximately \$12 million with the variance linked to the grant expense variation explanation.

**Australian Research Council  
Administered Reconciliation Schedule**

	Notes	2017 \$'000	2016 \$'000
<b>Opening assets less liabilities as at 1 July</b>		<b>(296,498)</b>	(349,500)
<b>Net (cost of)/contribution by services</b>			
Income		10,185	6,501
Expenses		(759,571)	(770,550)
<b>Transfers (to)/from the Australian Government</b>			
Appropriation transfers from OPA			
Annual appropriations	5.1A	2,933	6,261
Special appropriations (limited)	5.1C	734,662	815,304
Special accounts	5.2	9,000	2,000
Administered GST appropriations		1,572	4,311
Appropriation transfers to OPA			
Appropriations		(10,267)	(6,525)
Return of GST appropriation to OPA		(1,911)	(4,300)
<b>Closing assets less liabilities as at 30 June</b>		<b>(309,895)</b>	(296,498)

The above schedule should be read in conjunction with the accompanying notes.

**Accounting Policy**

*Administered Cash Transfers to and from the Official Public Account*

Revenue collected by the entity for use by the Government rather than the entity is administered revenue. Collections are transferred to the Official Public Account (OPA) maintained by the Department of Finance. Conversely, cash is drawn from the OPA to make payments under Parliamentary appropriation on behalf of Government. These transfers to and from the OPA are adjustments to the administered cash held by the entity on behalf of the Government and reported as such in the schedule of administered cash flows and in the administered reconciliation schedule.

**Australian Research Council**  
**Administered Cash Flow Statement**  
for the period ended 30 June 2017

	2017	2016
	\$'000	\$'000
<b>OPERATING ACTIVITIES</b>		
<b>Cash received</b>		
Net GST received	1,911	4,300
Other	10,267	6,501
<b>Total cash received</b>	<b>12,178</b>	<b>10,801</b>
<b>Cash used</b>		
Grants	734,499	808,381
Suppliers	12,096	15,165
Net GST Paid	1,572	4,307
<b>Total cash used</b>	<b>748,167</b>	<b>827,853</b>
<b>Net cash from/(used by) operating activities</b>	<b>(735,989)</b>	<b>(817,052)</b>
<b>Cash from Official Public Account</b>		
Appropriations	737,595	821,565
Special accounts	9,000	2,000
Administered GST appropriations	1,572	4,311
<b>Total cash from official public account</b>	<b>748,167</b>	<b>827,876</b>
<b>Cash to Official Public Account</b>		
Appropriations	(10,267)	(6,525)
Return of GST appropriation to OPA	(1,911)	(4,300)
<b>Total cash to official public account</b>	<b>(12,178)</b>	<b>(10,825)</b>
<b>Cash and cash equivalents at the end of the reporting period</b>	<b>-</b>	<b>-</b>

This schedule should be read in conjunction with the accompanying notes.

## Overview

### The Basis of Preparation

The financial statements are general purpose financial statements and are required by section 42 of the *Public Governance, Performance and Accountability Act 2013*.

The financial statements have been prepared in accordance with:

- a) *Public Governance, Performance and Accountability (Financial Reporting) Rule 2015* (FRR) for reporting periods ending on or after 1 July 2015; and
- b) Australian Accounting Standards and Interpretations issued by the Australian Accounting Standards Board (AASB) that apply for the reporting period.

The financial statements have been prepared on an accrual basis and in accordance with the historical cost convention, except for certain assets and liabilities at fair value. Except where stated, no allowance is made for the effect of changing prices on the results or the financial position. The financial statements are presented in Australian dollars.

### New Accounting Standards

All new and revised standards and/or interpretations that were issued prior to the sign-off date and are applicable to the current reporting period did not have a material effect on the entity's financial statements.

### Taxation

The ARC is exempt from all forms of taxation except Fringe Benefits Tax (FBT) and the Goods and Services Tax (GST).

### Reporting of Administered activities

Administered revenues, expenses, assets, liabilities and cash flows are disclosed in the administered schedules and related notes.

Except where otherwise stated below, administered items are accounted for on the same basis and using the same policies as for departmental items, including the application of Australian Accounting Standards.

### Events After the Reporting Period

#### Departmental

No departmental events have occurred after the reporting period that have the potential to significantly affect the ongoing structure and financial activities of the ARC.

#### Administered

No administered events have occurred after the reporting period that have the potential to significantly affect the ongoing structure and financial activities of the ARC.

### Breach of Section 83 of the Constitution

Section 83 of the Constitution provides that no amount may be paid out of the Consolidated Revenue Fund (CRF) except under an appropriation made by law.

The Department of Finance provided information to all agencies in 2013 regarding the need for risk assessments in relation to compliance with statutory conditions on payments from special appropriations, including special accounts.

During 2016-17 there were no known instances of non-compliance with section 83 of the Constitution.

# Financial Performance

## 1.1 Expenses

	2017	2016
	\$'000	\$'000
<b>1.1A: Employee Benefits</b>		
Wages and salaries	10,220	10,030
Superannuation:		
Defined contribution plans <sup>1</sup>	1,210	1,272
Defined benefit plans <sup>2</sup>	746	813
Leave and other entitlements	1,099	1,462
Separation and redundancies	101	136
Other employee benefits	479	593
<b>Total employee benefits</b>	<b>13,855</b>	<b>14,306</b>

1. Include the Public Sector Superannuation Accumulation Plan (PSSap) and other choice of fund.
2. Include the Commonwealth Superannuation Scheme (CSS) and the Public Sector Superannuation Scheme (PSS).

### Accounting Policy

Accounting policies for employee related expenses is contained in the People and Services section.

## 1.1 Expenses (continued)

	2017	2016
	\$'000	\$'000
<b>1.1B: Suppliers</b>		
<b>Goods and services supplied or rendered</b>		
Consultants	779	800
Contractors	612	395
Travel	110	217
IT services	414	341
Other <sup>1</sup>	831	770
<b>Total goods and services supplied or rendered</b>	<b>2,746</b>	<b>2,523</b>
Goods supplied	723	738
Services supplied	2,023	1,785
<b>Total goods and services supplied or rendered</b>	<b>2,746</b>	<b>2,523</b>

1. Other includes media monitors, subscriptions, printing, photocopier, telephone costs, staff training, staff study assistance costs, recruitment charges, office consumables and stationary, hire of equipment and comcover premium payments.

### Other suppliers

Operating lease rentals	1,478	1,419
Workers compensation expenses	197	169
<b>Total other suppliers</b>	<b>1,675</b>	<b>1,588</b>
<b>Total suppliers</b>	<b>4,421</b>	<b>4,111</b>

### Leasing commitments

In 2016-17, Operating leases existed in relation to the lease for office accommodation and arrangement for the provision of motor vehicles to senior executive officers. The office accommodation leases are non-cancellable and for a fixed term of 15 years (since September 2010). Lease payments are subject to annual increase of 4.25%. The last increase was in September 2016.

No contingent rentals exists. There are no renew or purchase options available to the ARC.

### Commitments for minimum lease payments in relation to non-cancellable operating leases are payable as follows:

Within 1 year	1,724	1,657
Between 1 to 5 years	7,548	7,241
More than 5 years	4,823	6,830
<b>Total operating lease commitments<sup>2</sup></b>	<b>14,095</b>	<b>15,728</b>

2. The amount listed above is the GST inclusive amount. The GST exclusive amount is \$12,813,839 (2015-16: \$14,297,581).

#### Accounting Policy

Where an asset is acquired by means of a finance lease, the asset is capitalised at either the fair value of the lease property or, if lower, the present value of minimum lease payments at the inception of the contract and a liability is recognised at the same time and for the same amount.

The discount rate used is the interest rate implicit in the lease. Leased assets are amortised over the period of the lease. Lease payments are allocated between the principal component and the interest expense.

The ARC has a finance lease for the office fitout that is non-cancellable. Additional finance leases were entered into in 2015-16 for laptops and storage hardware.

Operating lease payments are expensed on a straight-line basis which is representative of the pattern of benefits derived from the leased assets.

**1.1 Expenses (continued)**

	2017	2016
	\$'000	\$'000
<b>1.1C: Finance Costs</b>		
Finance leases	293	276
Unwinding of discount	7	8
Revaluation of make-good	-	58
<b>Total finance costs</b>	<b>300</b>	<b>342</b>

**Accounting Policy**  
 All borrowing costs are expensed as incurred.

## 1.2 Own-Source Revenue and Gains

	2017	2016
	\$'000	\$'000
<b>1.2A: Revenue from Government</b>		
Appropriations		
Departmental appropriations	21,839	21,017
<b>Total revenue from Government</b>	<b>21,839</b>	<b>21,017</b>

### **Accounting Policy**

#### ***Revenue from Government***

Amounts appropriated for departmental appropriations for the year (adjusted for any formal additions and reductions) are recognised as Revenue from Government when the entity gains control of the appropriation, except for certain amounts that relate to activities that are reciprocal in nature, in which case revenue is recognised only when it has been earned. Appropriations receivable are recognised at their nominal amounts.

## Income and Expenses Administered on Behalf of Government

### 2.1 Administered - Expenses

	2017 \$'000	2016 \$'000
<b>2.1A: Suppliers</b>		
<b>Goods and services supplied or rendered</b>		
Consultants	1,996	2,462
Contractors	1,165	1,258
Travel	740	719
IT services	6	9
Other <sup>1</sup>	9,246	9,577
<b>Total goods and services supplied or rendered</b>	<b>13,153</b>	<b>14,025</b>
Goods supplied	108	181
Services rendered	13,045	13,844
<b>Total goods and services supplied or rendered</b>	<b>13,153</b>	<b>14,025</b>
<b>2.1B: Grants</b>		
Public sector		
Australian Government entities (related entities)	66	1,584
State and Territory Governments	673,348	659,342
Commonwealth educational institutions (related entities)	64,265	62,454
Private sector		
Other research organisations	8,739	33,145
<b>Total grants</b>	<b>746,418</b>	<b>756,525</b>

1. A payment of \$9 million was made from the special appropriation to a non-corporate Commonwealth entity for research activity. This expense was treated as a supplier expense because it is a notional payment under section 76 of the PGPA Act and cannot be treated as a grant expense.

#### Accounting Policy

##### Grants

The ARC administers a number of grant schemes on behalf of the Government. Grant liabilities are recognised to the extent that the grant eligibility criteria or reporting requirements have been satisfied, but payments due have not been made (Refer to Note 4.3). When the Minister approves grants within the limits of the *Australian Research Council Act 2001* but services have not been performed or criteria satisfied, this is considered a commitment.

## 2.2 Administered - Income

	2017 \$'000	2016 \$'000
<b>Revenue</b>		
<b>Non-Taxation Revenue</b>		
<b><u>2.2A: Administered Other Revenue</u></b>		
Recovery of prior year unspent grant payments	10,185	6,501
<b>Total other revenue</b>	<b>10,185</b>	<b>6,501</b>

### **Accounting Policy**

All administered revenues are revenues relating to ordinary activities performed by the ARC on behalf of the Australian Government. As such, administered appropriations are not revenues of the ARC that oversees distribution or expenditure of the funds as directed.

Other revenue relate to the prior year unspent grant payments. Under the *Australian Research Council Act 2001*, grant recipients are required to return unspent grant money to the ARC unless otherwise approved.

Other revenue are recognised when unspent grant money is identified during the grant acquittal process. When these revenues are collected by the ARC they are then returned to OPA.

# Financial Position

## 3.1 Financial Assets

	2017	2016
	\$'000	\$'000
<b>3.1A: Cash and Cash Equivalents</b>		
Cash on hand or on deposit	467	305
<b>Total cash and cash equivalents</b>	<b>467</b>	<b>305</b>

### Accounting Policy

Cash is recognised at its nominal amount. Cash and cash equivalents includes cash on hand or on deposit.

### 3.1B: Trade and Other Receivables

#### Goods and services receivables

Goods and services	61	-
Other	15	-
<b>Total goods and services receivables</b>	<b>76</b>	<b>-</b>

#### Appropriations receivables

Appropriations receivable	19,304	14,324
<b>Total appropriations receivables</b>	<b>19,304</b>	<b>14,324</b>

#### Other receivables

GST receivable from the Australian Taxation Office	50	49
<b>Total other receivables</b>	<b>50</b>	<b>49</b>
<b>Total trade and other receivables (net)</b>	<b>19,430</b>	<b>14,373</b>

Receivables for goods and services, which have 30 day terms, are recognised at the nominal amounts due less any impairment allowance account. Collectability of debts is reviewed at end of the reporting period.

Allowances are made when collectability of the debt is no longer probable.

### Accounting Policy

#### *Loans and Receivables*

Trade receivables, loans and other receivables that have fixed or determinable payments and that are not quoted in an active market are classified as 'loans and receivables'. Loans and receivables are measured at amortised cost using the effective interest method less impairment.

## 3.2 Non-Financial Assets

### 3.2A: Reconciliation of the Opening and Closing Balances of Buildings, Plant and Equipment and Computer Software

#### Reconciliation for 2017

	Buildings <sup>1</sup> \$'000	Plant & equipment \$'000	Computer software <sup>2</sup> \$'000	Total \$'000
<b>As at 1 July 2016</b>				
Gross book value	2,923	1,400	21,110	25,433
Accumulated depreciation, amortisation and impairment	(896)	(478)	(9,418)	(10,792)
<b>Total as at 1 July 2016</b>	<b>2,027</b>	<b>922</b>	<b>11,692</b>	<b>14,641</b>
Additions				
Purchase	2	262	12	276
Internal developed	-	-	2,376	2,376
Finance lease <sup>3</sup>	-	-	-	-
Depreciation and amortisation	(226)	(243)	(3,176)	(3,645)
Disposals				
Other (gross book value)	-	(142)	-	(142)
Other (accumulated depreciation)	-	139	-	139
<b>Total as at 30 June 2017</b>	<b>1,803</b>	<b>938</b>	<b>10,904</b>	<b>13,645</b>
<b>Total as at 30 June 2017 represented by</b>				
Gross book value	2,925	1,520	23,498	27,943
Accumulated depreciation, amortisation and impairment	(1,122)	(582)	(12,594)	(14,298)
<b>Total as at 30 June 2017 represented by</b>	<b>1,803</b>	<b>938</b>	<b>10,904</b>	<b>13,645</b>

1. The carrying amount of \$1,803,217 (2015-16: \$2,026,921) of total leasehold improvements refers to the ARC's office premises fitout.

2. The carrying amount of computer software included \$13,531 purchased software and \$10,890,302 internally generated software.

The opening gross book value of computer software and accumulated depreciation has been adjusted. The gross book value was changed from \$32.727m to \$21.110m and the accumulated amortisation was changed from \$21.035m to \$9.418m. This adjustment did not affect the total as at 1 July 2016. The changes to the opening balances reflects the retirement of internally generated assets that occurred in 2015-16 due to new system releases. These retirements were not reflected in the 2015-16 gross values but do not affect the total net values reported.

3. Plant and equipment under finance leases were subject to materiality review. The carrying amount of \$579,985 (2015-2016: \$747,539) is included in the valuation figures above.

No indicators of impairment were found for plant and equipment and intangibles.

No buildings, plant and equipment and computer software are expected to be sold or disposed of within the next 12 months.

#### Revaluations of non-financial assets

All revaluations were conducted in accordance with the revaluation policy stated at Note 7.4. On 30 June 2017 an independent valuer conducted a revaluation. The result of the valuation was a 1.28% increase in fixed assets, due to this being immaterial the asset values have not been revised.

#### Contractual commitments for the acquisition of property, plant, equipment and intangible assets

Contractual commitments for IT systems under development are predominately for ICT contractors. The GST inclusive amount is \$2,188,185 (2015-16: \$3,165,087). The GST exclusive amount is \$1,989,259 (2015-16: \$2,877,352).

### **Accounting policy**

Assets are recorded at cost on acquisition except as stated below. The cost of acquisition includes the fair value of assets transferred in exchange and liabilities undertaken. Financial assets are initially measured at their fair value plus transaction costs where appropriate.

Assets acquired at no cost, or for nominal consideration, are initially recognised as assets and income at their fair value at the date of acquisition, unless acquired as a consequence of restructuring of administrative arrangements. In the latter case, assets are initially recognised as contributions by owners at the amounts at which they were recognised in the transferor's accounts immediately prior to the restructuring.

#### **Asset Recognition Threshold**

Purchases of plant and equipment are recognised initially at cost in the Statement of Financial Position, except for purchases costing less than \$2,000, which are expensed in the year of acquisition (other than where they form part of a group of similar items which are significant in total).

The initial cost of an asset includes an estimate of the cost of dismantling and removing the item and restoring the site on which it is located. This is particularly relevant to 'make good' provisions in property leases taken up by the ARC where there exists an obligation to restore the property to its original condition. These costs are included in the value of ARC's leasehold improvements with a corresponding provision for the 'make good' recognised.

#### **Revaluations**

Following initial recognition at cost, plant and equipment are carried at fair value less subsequent accumulated depreciation and accumulated impairment losses.

Valuations are conducted with sufficient frequency to ensure that the carrying amounts of assets do not differ materially from the assets' fair values as at the reporting date. The regularity of independent valuations depends upon the volatility of movements in market values for the relevant assets.

Revaluation adjustments are made on a class basis. Any revaluation increment was credited to equity under the heading of asset revaluation reserve except to the extent that it reversed a previous revaluation decrement of the same asset class that was previously recognised in the surplus/deficit. Revaluation decrements for a class of assets are recognised directly in the surplus/deficit except to the extent that they reversed a previous revaluation increment for that class.

Any accumulated depreciation as at the revaluation date was eliminated against the gross carrying amount of the asset and the asset was restated to the revalued amount.

#### **Depreciation**

Depreciable plant and equipment assets are written-off to their estimated residual values over their estimated useful lives to the ARC using, in all cases, the straight-line method of depreciation.

Depreciation rates (useful lives), residual values and methods are reviewed at each reporting date and necessary adjustments are recognised in the current, or current and future reporting periods, as appropriate.

Depreciation rates applying to each class of depreciable asset are based on the following useful lives:

	2017	2016
Leasehold improvements	Lease Term	Lease Term
Plant and equipment	2 to 10 years	2 to 10 years

#### **Impairment**

All assets were assessed for impairment at 30 June 2017. Where indications of impairment exist, the asset's recoverable amount is estimated and an impairment adjustment made if the asset's recoverable amount is less than its carrying amount.

The recoverable amount of an asset is the higher of its fair value less costs of disposal and its value in use. Value in use is the present value of the future cash flows expected to be derived from the asset. Where the future economic benefit of an asset is not primarily dependent on the asset's ability to generate future cash flows, and the asset would be replaced if the ARC were deprived of the asset, its value in use is taken to be its depreciated replacement cost.

#### **Derecognition**

An item of plant and equipment is derecognised upon disposal or when no further future economic benefits are expected from its use or disposal.

#### **Intangibles**

The ARC's intangibles comprise internally developed and purchased software for internal use. These assets are carried at cost less accumulated amortisation and accumulated impairment losses.

The ARC's internally developed software includes directly attributable overhead costs which meet the recognition criteria in AASB 138.

Software is amortised on a straight-line basis over its anticipated useful life. The useful lives for the ARC's software are 2 to 10 years (2016: 2 to 10 years).

All software assets were assessed for indications of impairment as at 30 June 2017.

### 3.3 Payables

	2017	2016
	\$'000	\$'000
<b>3.3A: Suppliers</b>		
Trade creditors and accruals	457	405
<b>Total suppliers</b>	<b>457</b>	<b>405</b>

Settlement was usually made within 30 days.

### 3.4 Interest Bearing Liabilities

	2017	2016
	\$'000	\$'000
<b>3.4A: Leases</b>		
Finance leases	2,715	3,026
<b>Total leases</b>	<b>2,715</b>	<b>3,026</b>
<b>Minimum leases expected to be settled</b>		
Within 1 year		
Present value of minimum lease payment	593	594
Future finance charge	(254)	(282)
Between 1 to 5 years		
Present value of minimum lease payment	2,006	2,201
Future finance charge	(714)	(835)
More than 5 years		
Present value of minimum lease payment	1,291	1,689
Future finance charge	(207)	(341)
<b>Total leases</b>	<b>2,715</b>	<b>3,026</b>

In 2017, Finance leases existed in relation to the ARC's office premises fitout (since September 2010), laptops and storage hardware.

The office premises fitout leases are non-cancellable and for a fixed term of 15 years. The interest rate implicit in the leases is 11% (2015-16: 11%). The lease assets secure the lease liabilities. The ARC guarantees the residual values of all assets leased.

Remaining repayments for computer hardware leases are \$554,718 in total and will be paid by instalments until April 2021.

#### Accounting Policy

Finance leases effectively transfer from the lessor to the lessee substantially all the risks and rewards incidental to ownership of leased assets.

Where an asset is acquired by means of a finance lease, the asset is capitalised at either the fair value of the lease property or, if lower, the present value of minimum lease payments at the inception of the contract and a liability is recognised at the same time and for the same amount.

The discount rate used is the interest rate implicit in the lease. Leased assets are amortised over the period of the lease. Lease payments are allocated between the principal component and the interest expense.

Operating lease payments are expensed on a straight-line basis which is representative of the pattern of benefits derived from the leased assets.



# Assets and Liabilities Administered on Behalf of the Government

## 4.1 Administered - Financial Assets

	2017 \$'000	2016 \$'000
<b>4.1A: Trade and Other Receivables</b>		
GST receivable from Australian Taxation Office	132	486
Grant debtors	3	-
<b>Total goods and services receivables</b>	<b>135</b>	<b>486</b>

All receivables are current assets and not overdue. Credit terms are net 30 days (2015-16: 30 days).

## 4.2 Administered - Non-Financial Assets

	2017	2016
	\$'000	\$'000

### **4.2A: Other Non-Financial Assets**

Prepayments	12	12
<b>Total other non-financial assets</b>	<b>12</b>	<b>12</b>

No indicators of impairment found for other non-financial assets.

**4.3 Administered - Payables**

	2017	2016
	\$'000	\$'000
<b>4.3A: Grants</b>		
Public sector		
Australian Government entities (related entities)	-	716
State and Territory Governments	281,658	267,903
Commonwealth educational institutions (related entities)	27,079	26,333
Private sector		
Other research organisations	161	1,956
<b>Total grants</b>	<b>308,898</b>	<b>296,908</b>

Settlement is in accordance with the terms and conditions of each grant which is consistent with the payment schedule determined by the Minister under the *Australian Research Council Act 2001*.

**Accounting Judgements and Estimates*****Grants***

The ARC recognises a liability for grant funding which is unpaid as at reporting date. Management has made a significant judgement that there are limited options not to pay out the entire remaining grants or enforce recovery until the recipient acquits the funds.

**4.3B: Other Payables**

Other <sup>1</sup>	1,144	88
<b>Total other payables</b>	<b>1,144</b>	<b>88</b>

1. Other payables mainly include accruals for the program assessment fees and committee member sitting fees.

# Funding

## 5.1 Appropriations

### 5.1A: Annual Appropriations ('Recoverable GST exclusive')

#### Annual Appropriations for 2017

	Annual Appropriation <sup>1</sup> \$'000	Adjustments to appropriation <sup>2</sup> \$'000	Total appropriation \$'000	Appropriation applied in 2017 (current and prior years) \$'000	Variance <sup>3</sup> \$'000
<b>Departmental</b>					
Ordinary annual services	21,839	9	21,848	18,851	2,997
Capital budget <sup>4</sup>	1,251	-	1,251	1,414	(163)
Other services					
Equity injections	3,536	-	3,536	1,227	2,309
<b>Total departmental</b>	<b>26,626</b>	<b>9</b>	<b>26,635</b>	<b>21,492</b>	<b>5,143</b>
<b>Administered</b>					
Ordinary annual services Administered items	6,915	-	6,915	2,933	3,982
<b>Total administered</b>	<b>6,915</b>	<b>-</b>	<b>6,915</b>	<b>2,933</b>	<b>3,982</b>

1. In 2015-16, \$0.536 million of Administered 2014-15 annual appropriations was identified to be withheld and quarantined under Section 51 of the PGPA Act. In 2016-17, \$1.872 million of Administered 2015-16 annual appropriations was identified as permanent quarantines under Section 51 of the PGPA Act and has been returned back to OPA.

2. PGPA Act Section 74 receipts.

3. Appropriation applied in 2016-17 was less than the appropriation received mainly due to unforeseen delays in implementation of budget measure Impact and Engagement in University Research.

4. Departmental Capital Budgets are appropriated through Appropriation Acts (No.1,3,5). They form part of ordinary annual services, and are not separately identified in the Appropriation Acts.

## 5.1 Appropriations (continued)

### 5.1A: Annual Appropriations (Recoverable GST exclusive)

Annual Appropriations for 2016		Annual Appropriation <sup>1</sup>	Adjustments to	Total	Appropriation	Variance <sup>2</sup>
		\$'000	appropriation	appropriation	applied in 2016	\$'000
			\$'000	\$'000	(current and prior years)	\$'000
Departmental						
Ordinary annual services		21,017	-	21,017	17,900	3,117
Capital budget <sup>3</sup>		1,253	-	1,253	1,365	(112)
Other services						
Equity injections		2,572	-	2,572	2,141	431
Total departmental		24,842	-	24,842	21,406	3,436
Administered						
Ordinary annual services						
Administered items		5,707	-	5,707	6,238	(531)
Total administered		5,707	-	5,707	6,238	(531)

1. During 2015-16, \$0.536 million of Administered 2014-15 annual appropriations was identified to be withheld and quarantined under Section 51 of the PGPA Act.

2. The variance arose mainly due to the ARC receiving additional appropriation during 2015-16 MYEFO budget that was not anticipated in the original budget, for the National Innovation and Science Agenda - measuring research impact (p66 of 2015-16 Portfolio Additional Estimates Statements). Appropriation applied in 2015-16 was less than the appropriation received mainly due to unforeseen delays in implementation of 2015-16 MYEFO budget measure.

3. Departmental Capital Budgets are appropriated through Appropriation Acts (No.1.3.5). They form part of ordinary annual services, and are not separately identified in the Appropriation Acts.

## 5.1 Appropriations (continued)

### 5.1B: Unspent Annual Appropriations ('Recoverable GST exclusive')

	2017 \$'000	2016 \$'000
<b>Departmental</b>		
<i>Appropriation Act 1 (2015-16)</i>	-	11,734
<i>Appropriation Act 2 (2015-16)</i>	-	1,171
<i>Appropriation Act 3 (2015-16)</i>	979	1,419
<i>Appropriation Act 1 (2016-17)</i>	13,478	-
<i>Supply Act 1 (2016-17)</i>	1,367	-
<i>Appropriation Act 2 (2016-17)</i>	2,063	-
<i>Supply Act 2 (2016-17)</i>	1,417	-
<b>Total departmental</b>	<b>19,304</b>	<b>14,324</b>
<b>Administered</b>		
<i>Appropriation Act 1 (2014-15)</i> <sup>1</sup>	536	536
<i>Appropriation Act 1 (2015-16)</i> <sup>2</sup>	-	1,419
<i>Appropriation Act 3 (2015-16)</i> <sup>2</sup>	-	539
<i>Appropriation Act 1 (2016-17)</i>	3,102	-
<i>Supply Act 1 (2016-17)</i>	967	-
<b>Total administered</b>	<b>4,605</b>	<b>2,494</b>

1. \$0.536 million of Administered 2014-15 annual appropriations was identified to be withheld and quarantined under Section 51 of the PGPA Act in 2015-16.

2. In 2016-17, \$1.872 million of Administered 2015-16 annual appropriations was identified as permanent quarantines under Section 51 of the PGPA Act and has been returned back to OPA.

### 5.1C Special Appropriations ('Recoverable GST exclusive')

	Appropriation applied	
	2017 \$'000	2016 \$'000
<i>Australian Research Council Act 2001</i> s.49, Administered, limit \$744,363,000 for the current reporting period, remaining appropriation lapsed on 30 June 2017.	743,662	815,304
<b>Total special appropriations applied</b>	<b>743,662</b>	<b>815,304</b>

<b>5.2 Special Account</b>		
<b>ARC Research Endowment Account (Administered)<sup>1</sup></b>	<b>2,017</b>	2,016
	<b>\$'000</b>	<b>\$'000</b>
<b>Balance brought forward from previous period</b>	-	2,000
<b>Increases</b>		
Appropriation credited to special account	<b>9,000</b>	7,000
<b>Available for payments</b>	<b>9,000</b>	9,000
<b>Decreases</b>		
Payments made to research organisations	<b>(9,000)</b>	(9,000)
<b>Total balance carried to the next period</b>	-	-
<p>1. Appropriation: <i>Public Governance, Performance and Accountability Act 2013</i> section 80.</p> <p>2. Establishing Instrument: <i>Australian Research Council Act 2001</i> section 62.</p> <p>3. Purpose: The purpose of this special account is to provide financial assistance to organisations for eligible research programs.</p>		

### 5.3 Net Cash Appropriation Arrangements

	2017 \$'000	2016 \$'000
<b>Total comprehensive income/(loss) less depreciation/amortisation expenses previously funded through revenue appropriations<sup>1</sup></b>	<b>3,380</b>	2,325
Plus: depreciation/amortisation expenses previously funded through revenue appropriation	<b>(3,645)</b>	(7,389)
<b>Total comprehensive income/(loss) - as per the Statement of Comprehensive Income</b>	<b>(265)</b>	(5,064)

1. From 2010-11, the Government introduced net cash appropriation arrangements, where revenue appropriations for depreciation/amortisation expenses ceased. Entities now receive a separate capital budget provided through equity appropriations. Capital budgets are to be appropriated in the period when cash payment for capital expenditure is required.

# People and relationships

## 6.1 Employee Provisions

	2017	2016
	\$'000	\$'000
<b>6.1A: Employee Provisions</b>		
Leave	<u>3,979</u>	3,996
<b>Total employee provisions</b>	<u>3,979</u>	3,996

### **Accounting policy**

Liabilities for 'short-term employee benefits' (as defined in AASB 119 *Employee Benefits*) and termination benefits expected within twelve months of the end of the reporting period are measured at their nominal amounts. The nominal amount is calculated with regard to the rates expected to be paid on settlement of the liability.

Other long-term employee benefits are measured as the net total of the present value of the defined benefit obligation at the end of the reporting period minus the fair value at the end of the reporting period of plan assets (if any) out of which the obligations are to be settled directly.

### **Leave**

The liability for employee benefits includes provision for annual leave and long service leave. No provision has been made for sick leave as all sick leave is non-vesting.

The leave liabilities are calculated on the basis of employees' remuneration at the estimated salary rates that will be applied at the time the leave is taken, including the ARC's employer superannuation contribution rates to the extent that the leave is likely to be taken during service rather than paid out on termination.

The liability for long service leave is recognised and measured at the present value of the estimated future cash flows to be made in respect of all employees at 30 June 2017. The estimate of the present value of the liability takes into account attrition rates and pay increases through promotion and inflation.

### **Separation and Redundancy**

As at 30 June 2017 the ARC did not have any provisions for separation and redundancy benefit payments.

### **Superannuation**

The ARC's staff are members of the Commonwealth Superannuation Scheme (CSS), the Public Sector Superannuation Scheme (PSS) or the PSS accumulation plan (PSSap).

The CSS and PSS are defined benefit schemes for the Australian Government. The PSSap is a defined contribution scheme.

The liability for defined benefits is recognised in the financial statements of the Australian Government and is settled by the Australian Government in due course. This liability is reported by the Department of Finance's administered schedules and notes.

The ARC makes employer contributions to the employees' superannuation schemes at rates determined by an actuary to be sufficient to meet the current cost to the Government. The ARC accounts for the contributions as if they were contributions to defined contribution schemes.

The liability for superannuation recognised as at 30 June 2017 represents outstanding contributions for the final fortnight of the year.

### **Accounting Judgements and Estimates**

Employee provisions are dependent on management assumptions for their measurement.

No accounting assumptions or estimates have been identified that have a significant risk of causing a material adjustment to carrying amounts of assets and liabilities within the next reporting period.

## 6.2 Key Management Personnel Remuneration

	2017	2016
	\$'000	\$'000
Short-term employee benefits	928	1,382
Post-employment benefits	149	242
Other long-term employee benefits	101	129
<b>Total key management personnel remuneration expenses<sup>1</sup></b>	<b>1,178</b>	<b>1,753</b>

The total number of Key Management Personnel (KMP) that are included in the above table are 5 individuals. In 2015-16 there were 7 individuals identified as Senior Management Personnel (SMP).

KMP are those persons having authority and responsibility for planning, directing and controlling the activities of the entity, directly or indirectly, including any director (whether executive or otherwise) of that entity. In 2016-17, there are five individuals are considered KMP in the ARC that include Chief Executive Officer (CEO), Executive General Manager (EGM) and Branch Managers.

The above key management personnel remuneration excludes the remuneration and other benefits of the Portfolio Minister. The Portfolio Minister's remuneration and other benefits are set by the Remuneration Tribunal and are not paid by the ARC.

### 6.3 Related Party Disclosures

**Related party relationships:**

The ARC is an Australian Government controlled entity. Related parties to the ARC include the CEO and Key Management Personnel including the Portfolio Minister and other Australian Government entities.

**Transactions with related parties:**

Given the breadth of Government activities, related parties may transact with the government sector in the same capacity as ordinary citizens. Such transactions are not disclosed separately in this note.

In 2016-17, no Grants were paid to KMP or their related parties under AASB 124 *Related Party Disclosures*.

**The following transactions with related parties occurred during the financial year:**

The entity transacts with other Australian Government controlled entities consistent with normal day-to-day business operations provided under normal terms and conditions, including the payment of workers compensation, insurance premiums and the payment of superannuation to the Commonwealth Superannuation Scheme (CSS), the Public Sector Superannuation Scheme (PSS), and the PSS accumulation plan (PSSap). These are not considered individually significant to warrant separate disclosure as related party transactions.

Grants paid and grants owing to other Australian Government controlled entities are disclosed under Notes 2.1B and 4.3A.

# Managing uncertainties

## 7.1 Contingent Assets and Liabilities

There were no Departmental and Administered contingent assets and liabilities in 2016-17 for the ARC (2015-16: nil).

### **Accounting Policy**

Contingent liabilities and contingent assets are not recognised in the statement of financial position but are reported in the notes. They may arise from uncertainty as to the existence of a liability or asset or represent an asset or liability in respect of which the amount cannot be reliably measured.

Contingent assets are disclosed when settlement is probable but not virtually certain and contingent liabilities are disclosed when settlement is greater than remote.

## 7.2 Financial Instruments

	2017	2016
	\$'000	\$'000
<b>7.2A: Categories of Financial Instruments</b>		
<b>Financial assets</b>		
<b>Loans and receivables</b>		
Cash and cash equivalents	467	305
Goods and services receivables	76	-
<b>Total loans and receivables</b>	<b>543</b>	<b>305</b>
<b>Total financial assets</b>	<b>543</b>	<b>305</b>
<b>Financial liabilities</b>		
<b>Financial liabilities measured at amortised cost</b>		
Suppliers	457	405
Other payables	109	54
Finance leases	2,715	3,026
<b>Total financial liabilities measured at amortised cost</b>	<b>3,281</b>	<b>3,485</b>
<b>Total financial liabilities</b>	<b>3,281</b>	<b>3,485</b>

**Accounting Policy****Financial assets**

The ARC classifies its financial assets in the following categories:

- financial assets at fair value through profit or loss;
- held-to-maturity investments;
- available-for-sale financial assets; and
- loans and receivables.

The classification depends on the nature and purpose of the financial assets and is determined at the time of initial recognition. Financial assets are recognised and derecognised upon trade date.

**Effective Interest Method**

Income is recognised on an effective interest rate basis except for financial assets that are recognised at fair value through profit or loss.

**Financial Assets at Fair Value Through Profit or Loss**

Financial assets are classified as financial assets at fair value through profit or loss where the financial assets:

- have been acquired principally for the purpose of selling in the near future; or
- are parts of an identified portfolio of financial instruments that the entity manages together and has a recent actual pattern of short-term profit-taking.

Assets in this category are classified as current assets.

Financial assets at fair value through profit or loss are stated at fair value, with any resultant gain or loss recognised in profit or loss. The net gain or loss recognised in profit or loss incorporates any interest earned on the financial asset.

**Impairment of Financial Assets**

Financial assets are assessed for impairment at the end of each reporting period.

*Financial assets held at amortised cost* - if there is objective evidence that an impairment loss has been incurred for loans and receivables or held to maturity investments held at amortised cost, the amount of the loss is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows discounted at the asset's original effective interest rate. The carrying amount is reduced by way of an allowance account. The loss is recognised in the Statement of Comprehensive Income.

*Available for sale financial assets* - if there is objective evidence that an impairment loss on an available-for-sale financial asset has been incurred, the amount of the difference between its cost, less principal repayments and amortisation, and its current fair value, less any impairment loss previously recognised in expenses, is transferred from equity to the Statement of Comprehensive Income.

*Financial assets held at cost* - if there is objective evidence that an impairment loss has been incurred, the amount of the impairment loss is the difference between the carrying amount of the asset and the present value of the estimated future cash flows discounted at the current market rate for similar assets.

**Financial liabilities**

Financial liabilities are classified as either financial liabilities 'at fair value through profit or loss' or other financial liabilities. Financial liabilities are recognised and derecognised upon 'trade date'.

**Financial Liabilities at Fair Value Through Profit or Loss**

Financial liabilities at fair value through profit or loss are initially measured at fair value. Subsequent fair value adjustments are recognised in profit or loss. The net gain or loss recognised in profit or loss incorporates any interest paid on the financial liability.

**Other Financial Liabilities**

Other financial liabilities, including borrowings, are initially measured at fair value, net of transaction costs. These financial liabilities are subsequently measured at amortised cost using the effective interest method, with interest expense recognised on an effective yield basis.

The effective interest method is a method of calculating the amortised cost of a financial liability and of allocating interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments through the expected life of the financial liability, or, where appropriate, a shorter period.

Supplier and other payables are expected to be settled within 12 months. Liabilities are recognised to the extent that the goods or services have been received (and irrespective of having been invoiced).

## 7.2 Financial Instruments (continued)

	2017	2016
	\$'000	\$'000
<b>7.2B: Net Gains or Losses on Financial Liabilities</b>		
<b>Financial liabilities measured at amortised cost</b>		
Interest expense	300	342
<b>Net gains/(losses) on financial liabilities measured at amortised cost</b>	<b>300</b>	<b>342</b>

The total interest expense from financial liabilities not at fair value through profit or loss in 2016-17 was \$299,896 (2015-16: \$342,369).

<b>7.3 Administered - Financial Instruments</b>		
	<b>2017</b>	<b>2016</b>
	<b>\$'000</b>	<b>\$'000</b>
<b><u>7.3A: Categories of Financial Instruments</u></b>		
<b>Financial assets</b>		
<b>Loans and receivables</b>		
Cash and cash equivalents	-	-
<b>Total loans and receivables</b>	<b>-</b>	<b>-</b>
<b>Total financial assets</b>	<b>-</b>	<b>-</b>
<b>Financial liabilities</b>		
<b>Financial liabilities measured at amortised cost</b>		
Grants	<b>308,898</b>	296,908
Other payables	<b>1,144</b>	88
<b>Total financial liabilities measured at amortised cost</b>	<b>310,042</b>	296,996
<b>Total financial liabilities</b>	<b>310,042</b>	296,996

## 7.4 Fair Value Measurement

### Accounting Policy

The ARC tests the procedures of the valuation model as an asset materiality review at least once every 12 months. If a particular asset class is subject to significant and volatile changes in fair value (i.e. where indicators suggest that the value of the class has changed materially since the previous reporting period), that class is subject to specific valuation in the reporting period, where practicable, regardless of the timing of the last specific valuation. The ARC engaged a valuer to undertake a valuation of all plant and equipment assets and confirm that the models developed comply with AASB 13.

## 7.4 Fair Value Measurement

	Fair value measurements at the end of the reporting period	
	2017 \$'000	2016 \$'000
<b>Non-financial assets<sup>1</sup></b>		
Leasehold improvements (Fitout)	1,803	2,027
Plant and equipment <sup>2</sup>	358	175
<b>Total non-financial assets</b>	<b>2,161</b>	<b>2,202</b>

1. The ARC did not measure any non-financial assets (NFAs) at fair value on a non-recurring basis as at 30 June 2017.

2. The remaining assets and liabilities reported by the ARC are not measured at fair value in the Statement of Financial Position. Finance leases totalling \$579,985 (2015-16 \$747,539) included in the asset register for Plant and equipment have been excluded from the above table.

This page intentionally left blank.



# PART 7 APPENDICES

<b>Appendix 1 National Competitive Grants Program funding schemes</b>	<b>154</b>
<b>Appendix 2 National Competitive Grants Program statistics</b>	<b>157</b>
<b>Appendix 3 Prizes and awards</b>	<b>159</b>
<b>Appendix 4 Resource statements</b>	<b>163</b>
<b>Appendix 5 Other mandatory information</b>	<b>165</b>

# Appendix 1 National Competitive Grants Program funding schemes

This appendix provides information to support the section of the Annual Performance Statement for Key Activity 1: Funding the highest quality research.

## DISCOVERY PROGRAM

### Australian Laureate Fellowships

First selection round	Funding commencing in 2009
Frequency	Annual
Description	The Australian Laureate Fellowships scheme aims to attract and retain outstanding researchers in Australia. The scheme provides fellows with project funding in addition to a salary supplement and salary-related (on-cost) support.

### Discovery Early Career Researcher Award

First selection round	Funding commencing in 2012
Frequency	Annual
Description	The Discovery Early Career Researcher Award scheme aims to support early career researchers.

### Discovery Indigenous

First selection round	Funding commencing in 2002 (Discovery Indigenous Researchers Development); funding commencing in 2012 (Discovery Indigenous)
Frequency	Annual
Description	The Discovery Indigenous scheme aims to support research projects led by an Aboriginal and Torres Strait Islander researcher and to build the research capacity of higher degree researchers and early career researchers.

### Discovery Projects

First selection round	Funding commencing in 2002
Frequency	Annual
Description	The Discovery Projects scheme provides funding for research projects undertaken by excellent individual researchers and/or research teams.

## Future Fellowships

First selection round	Funding commencing in 2009
Frequency	Annual
Description	The Future Fellowships scheme aims to attract and retain the brightest and best mid-career researchers.

## LINKAGE PROGRAM

### ARC Centres of Excellence

First selection round	Funding commencing in 2003
Frequency	Periodic
Description	The ARC Centres of Excellence scheme aims to build critical mass in areas of research priority. Funding of between \$1 million and \$4 million per annum for up to seven years may be awarded for each ARC Centre of Excellence.

### Industrial Transformation Research Hubs

First selection round	Funding commencing in 2012
Frequency	Annual
Description	The Industrial Transformation Research Hubs scheme supports collaborative research activity between the Australian higher education sector and industry in identified Industrial Transformation priority areas.

### Industrial Transformation Training Centres

First selection round	Funding commencing in 2013
Frequency	Annual
Description	The Industrial Transformation Training Centres scheme fosters close partnerships between university-based researchers and other research end-users to provide innovative Higher Degree by Research and postdoctoral training for industries vital to Australia's future.

### Linkage Infrastructure, Equipment and Facilities

First selection round	Funding commencing in 2002
Frequency	Annual
Description	The Linkage Infrastructure, Equipment and Facilities scheme encourages institutions to develop collaborative arrangements to support research infrastructure.

## Linkage Learned Academies Special Projects

First selection round	Funding commencing in 2002
Frequency	Periodic
Description	The Linkage Learned Academies Special Projects scheme funds the Australian Council of Learned Academies and the Learned Academies to undertake research projects.

## Linkage Projects

First selection round	Funding commencing in 2002
Frequency	Annual since 2013; continuous from 1 July 2016
Description	The Linkage Projects scheme supports collaborative research and research training between universities and partner organisations.

## Special Research Initiatives

First selection round	Funding commencing in 2002
Frequency	As required
Description	Under the Special Research Initiatives scheme, the ARC identifies new or emerging areas of research for funding. Applications for funding may be submitted only when invited by the ARC by means of a call for proposal(s).

## Supporting Responses to Commonwealth Science Council Priorities

First selection round	Not yet conducted
Frequency	As required
Description	The Supporting Responses to Commonwealth Science Council Priorities scheme aims to support the development of Australian research in priority areas as set by the Commonwealth Science Council. Organisations eligible to administer funding under the scheme are the Australian Council of Learned Academies and the Learned Academies.

# Appendix 2 National Competitive Grants Program statistics

This appendix provides information to support the section of the Annual Performance Statement for Key Activity 1: Funding the highest quality research.

**Table A1: Discovery Program funding commencing in 2014–15 to 2016–17**

SCHEME	2014–15	2015–16	2016–17
<b>Australian Laureate Fellowships</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
Number of proposals	90	115	124
Number of awards	16	15	16
Success rate (%)	17.8	13.0	12.9
Total funding (\$)	42,151,524	42,025,000	44,123,452
<b>Discovery Early Career Researcher Award</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
Number of proposals	1,394	1,220	1,197
Number of awards	200	200	200
Success rate (%)	14.3	16.4	16.7
Total funding (\$)	70,567,494	70,736,647	71,700,673
<b>Discovery Indigenous</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
Number of proposals	32	31	31
Number of awards	10	10	11
Success rate (%)	31.3	32.3	35.5
Total funding (\$)	4,392,609	4,059,356	4,634,891
<b>Discovery Projects</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
Number of proposals	3,689	3,584	3,540
Number of awards	665	635	630
Success rate (%)	18.0	17.7	17.8
Total funding (\$)	250,044,435	244,935,035	234,660,652
<b>Future Fellowships</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
Number of proposals	830	315	324
Number of awards	150	50	100
Success rate (%)	18.1	15.9	30.9
Total funding (\$)	114,919,482	38,648,000	77,023,663

**Table A2: Linkage Program funding commencing in 2014–15 to 2016–17**

SCHEME	2014–15	2015–16	2016–17
<b>ARC Centres of Excellence</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
Number of Expressions of Interest (EOI)	n/a	n/a	97
Number of EOI shortlisted	n/a	n/a	20
EOI success rate (%)	n/a	n/a	20.6
Number of proposals funded	n/a	n/a	9
Proposal success rate (%)	n/a	n/a	47.4
Total funding (\$)	n/a	n/a	283,500,000
<b>Industrial Transformation Research Hubs</b>	<b>2014</b>	<b>2015</b>	<b>2017</b>
Number of proposals	15	11	5
Number of awards	4	5	3
Success rate (%)	26.7	45.5	60.0
Total funding (\$)	18,681,869	15,696,194	9,603,797
<b>Industrial Transformation Training Centres</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
Number of proposals	17	27	26
Number of awards	5	6	9
Success rate (%)	29.4	22.2	34.6
Total funding (\$)	20,895,677	22,044,067	36,990,090
<b>Linkage Infrastructure, Equipment and Facilities</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
Number of proposals	159	173	179
Number of awards	66	54	48
Success rate (%)	41.5	31.2	26.8
Total funding (\$)	28,995,463	37,973,900	28,628,728
<b>Linkage Learned Academies Special Projects</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
Number of proposals	n/a	n/a	n/a
Number of awards	n/a	n/a	n/a
Success rate (%)	n/a	n/a	n/a
Total funding (\$)	n/a	n/a	n/a
<b>Linkage Projects<sup>1</sup></b>	<b>2014</b>	<b>2016</b>	<b>2017</b>
Number of proposals	699	710	967
Number of awards	251	252	320
Success rate (%)	35.9	35.5	33.1
Total funding (\$)	88,154,841	86,927,155	115,362,905
<b>Special Research Initiatives<sup>2</sup></b>	<b>2014–15</b>	<b>2015–16</b>	<b>2016–17</b>
Number of proposals	1	n/a	n/a
Number of awards	1	n/a	n/a
Total funding (\$)	24,000,000	n/a	n/a

Notes 1 Linkage Projects 2016 includes six months of continuous applications (from 1 July 2016).

2 The Special Research Initiative reported is the Antarctic Gateway Partnership (funding commencing in 2014–15).

# Appendix 3 Prizes and awards

This appendix provides information to support the section of the Annual Performance Statement for Key Activity 1: Funding the highest quality research.

## 2017 ACADEMY OF TECHNOLOGICAL SCIENCES AND ENGINEERING CLUNIES ROSS AWARDS

- Entrepreneur of the Year Award: Professor Andrew Wilks, Executive Chairman, SYNthesis Pty Ltd (Partner Investigator)
- Innovation Award: Professor Mike Xie, RMIT University (Chief Investigator)

## 2017 AUSTRALIAN ACADEMY OF SCIENCE AWARDS

### Career honours

- Jaeger Medal: Emeritus Professor Ross Griffiths, The Australian National University (Chief Investigator)
- Matthew Flinders Medal: Professor Barry Ninham AO, The Australian National University (Chief Investigator)
- Thomas Ranken Lyle Medal: Professor Jonathan Bland-Hawthorn, The University of Sydney (Australian Laureate Fellow, Chief Investigator)

### Mid-career honours

- Nancy Millis Medal for Women in Science: Professor Kerrie Wilson, The University of Queensland (Chief Investigator)

### Early-career honours

- Anton Hales Medal: Associate Professor Juan Afonso, Macquarie University (Chief Investigator)
- Dorothy Hill Award: Dr Joanne Whittaker, University of Tasmania (Discovery Early Career Researcher Award (DECRA), Chief Investigator)
- Fenner Medal: Professor Simon Ho, The University of Sydney (Future Fellow, Chief Investigator)
- John Booker Medal: Distinguished Professor Dayong Jin, University of Technology Sydney (Future Fellow, Chief Investigator)
- Le Févre Memorial Prize: Associate Professor Deanna D'Alessandro, The University of Sydney (Chief Investigator)
- Moran Medal: Associate Professor Joshua Ross, The University of Adelaide (Future Fellow, Chief Investigator)
- Pawsey Medal: Associate Professor Igor Aharonovich, University of Technology Sydney (Chief Investigator)

## 2016 AUSTRALIAN MUSEUM EUREKA PRIZES

- Department of Industry, Innovation and Science Eureka Prize for Innovation in Citizen Science: Associate Professor Philip Bland, Curtin University of Technology (Chief Investigator)
- 3M Eureka Prize for Emerging Leader in Science: Associate Professor Sharath Sriram, RMIT University (Chief Investigator)
- Scopus Eureka Prize for Excellence in International Scientific Collaboration: Professor Alistair Forrest, Harry Perkins Institute of Medical Research (Chief Investigator)
- Australian Nuclear Science and Technology Organisation (ANSTO) Eureka Prize for Innovative Use of Technology: Professor Ewa Goldys, Macquarie University (Chief Investigator)
- Commonwealth Scientific and Industrial Research Organisation (CSIRO) Eureka Prize for Leadership in Innovation and Science: Professor Gordon Wallace, University of Wollongong (Chief Investigator)
- Australian Infectious Diseases Research Centre Eureka Prize: Professor Leann Tilley, The University of Melbourne (Australian Laureate Fellow, Chief Investigator), Associate Professor Julie Simpson, The University of Melbourne (Chief Investigator), Associate Professor James McCaw, The University of Melbourne (Chief Investigator)
- University of Technology Sydney Eureka Prize for Outstanding Mentor of Young Researchers: Professor Patricia Davidson, University of Technology Sydney (Chief Investigator)
- The University of New South Wales (UNSW) Eureka Prize for Scientific Research: Professor Melissa Little, The University of Queensland (Chief Investigator)
- UNSW Eureka Prize for Excellence in Interdisciplinary Scientific Research: Professor Ross Large, The University of Tasmania (Chief Investigator)

## 2017 L'OREAL–UNESCO ASIA PACIFIC WOMEN IN SCIENCE FELLOWSHIPS

- Professor Michelle Simmons, UNSW (Australian Laureate Fellow, Chief Investigator)

## 2016 PRIME MINISTER'S SCIENCE PRIZES

- Frank Fenner Prize for Life Scientist of the Year: Professor Kerrie Wilson, The University of Queensland (Chief Investigator)
- Malcolm McIntosh Prize for Physical Scientist of the Year: Professor Richard Payne, The University of Sydney (Future Fellow, Chief Investigator)
- Prime Minister's Prize for Science: Professor Richard Shine AM, The University of Sydney (Australian Laureate Fellow, Chief Investigator)

## 2016 STATE AND TERRITORY AWARDS

### New South Wales

- NSW Scientist of the Year: Professor Richard Shine AM, The University of Sydney (Australian Laureate Fellow, Chief Investigator)

### Australian Capital Territory

- ACT Scientist of the Year: Dr Ceridwen Fraser, The Australian National University (DECRA)

### South Australia Science Excellence Awards

- SA Scientist of the Year: Professor Alan Cooper, The University of Adelaide (Australian Laureate Fellow, Chief Investigator)

### Western Australia Premier's Science Awards

- WA Scientist of the Year: Professor Kingsley Dixon, Curtin University of Technology (Chief Investigator)

## 2016 YOUNG TALL POPPY SCIENCE AWARDS

### Australian Capital Territory

- Dr Gemma Carey, The University of New South Wales (Chief Investigator)
- Dr Yuerui Lu, The Australian National University (DECRA)

### New South Wales

- Dr Katherine Dafforn, The University of New South Wales (Chief Investigator)
- Dr Bronwyn Graham, The University of New South Wales (DECRA)
- Dr Danielle Moreau, The University of New South Wales (DECRA)
- Dr Dale Nimmo, Charles Sturt University (DECRA, Chief Investigator)
- Dr Jonathan Plett, Western Sydney University (DECRA, Chief Investigator)
- Dr Robert Taylor, The University of New South Wales (DECRA, Chief Investigator)

### Queensland

- Dr Luke Knibbs, The University of Queensland (Chief Investigator)
- Dr Makrina Totsika, Queensland University of Technology (DECRA)

### South Australia

- Dr Justin Chalker, The Flinders University of South Australia (DECRA)
- Dr Tom Raimondo, University of South Australia (Chief Investigator)

## Tasmania

- Dr Nathan Kilah, University of Tasmania (DECRA)

## Victoria

- Associate Professor Brian Abbey, La Trobe University (Future Fellow, Chief Investigator)
- Dr Paul Lasky, Monash University, (Future Fellow)
- Dr Laura Mackay, The University of Melbourne (DECRA)
- Dr Ivan Poon, La Trobe University (Chief Investigator)
- Dr Benjamin Rubinstein, The University of Melbourne (DECRA, Chief Investigator)
- Dr Ke Wang, The University of Melbourne (DECRA)

## Western Australia

- Dr Danail Obreschkow, The University of Western Australia (Chief Investigator)
- Dr Olivier Van Aken, The University of Western Australia (Chief Investigator)

## OTHER

- Royal Australian Chemical Institute, Burrows Award: Professor Peter Junk, James Cook University (Chief Investigator)
- American Physical Society, Rolf Landauer and Charles H. Bennett Award in Quantum Computing: Professor Andrea Morello, The University of New South Wales (Chief Investigator)
- Kyoto Prize: Professor Graham Farquhar, The Australian National University (Chief Investigator)
- Association for the Sciences of Limnology and Oceanography, G. Evelyn Hutchinson Award: Professor Philip Boyd, University of Tasmania (Future Fellow, Chief Investigator)
- *Nature's* 10 for 2016 (ten people in science who mattered this year): Professor Terry Hughes, James Cook University (Australian Laureate Fellow, Chief Investigator)

# Appendix 4 Resource statements

This appendix provides information to support the financial information in Section 3.2: Financial performance.

**Table A3: ARC Resource Statement 2016–17**

		ACTUAL AVAILABLE APPROPRIATION FOR 2016–17 \$'000 (A)	PAYMENTS MADE 2016–17 \$'000 (B)	BALANCE REMAINING <sup>6</sup> 2016–17 \$'000 (A) – (B)
<b>Ordinary annual services<sup>1</sup></b>				
Departmental appropriation <sup>2</sup>		36,251	20,265	15,986
Total		36,251	20,265	15,986
<b>Administered resourcing</b>				
Outcome 1 <sup>3</sup>		9,409	2,933	
Total		9,409	2,933	
Total ordinary annual services	A	45,660	23,198	
<b>Other services</b>				
<b>Departmental non-operating</b>				
Equity injections <sup>4</sup>		4,707	1,277	3,480
Total		4,707	1,277	3,480
Total other services	B	4,707	1,277	3,480
Total available annual appropriations and payments		50,367	24,425	
<b>Special appropriations</b>				
Special appropriations limited by criteria/entitlement				
<i>Australian Research Council Act 2001</i>		744,366	743,622	
Total special appropriations	C	744,366	743,622	
<b>Special accounts</b>				
Opening balance				
Appropriation receipts <sup>5</sup>		9,000		
Payments made			9,000	
Total special account	D	(9,000)	(9,000)	
Total resourcing and payments	A+B+C+D	803,730	777,087	
Less appropriations drawn from annual or special appropriations above and credited to special accounts		(9,000)	(9,000)	
Total net resourcing and payments for the ARC		794,730	768,087	

1 Appropriation Act (No. 1) 2016–17 and Supply Act (No. 1). This also includes prior-year departmental Appropriation Act (no.1), (No.3) and section 74 retained revenue receipts of the PGPA Act.

2 Includes an amount of \$1.251m in 2016–17 for the departmental capital budget. For accounting purposes, this amount has been designated as 'contributions by owners'.

3 Includes \$0.536 million of Administered 2014–15 annual appropriations identified to be withheld and quarantined under Section 51 of the PGPA Act in 2015–16 and \$1.872 million of Administered 2015–16 annual appropriations identified as permanent quarantines under Section 51 of the PGPA Act and has been returned.

4 Appropriation Act (No. 2) 2016–17. This also includes prior year Appropriation Act (No.2).

5 Appropriation receipts from 2016–17 special appropriation.

6 The remaining balance for 2016–17 differs from the unspent annual appropriations (as per Financial Note 5.1B). This is due to the payments made including the movement in the ARC's cash account, whereas note 5.1B considers only the drawdowns from the available appropriations.

**Table A4: ARC Expenses for Outcome 1 2016–17**

<b>OUTCOME 1: GROWTH OF KNOWLEDGE AND INNOVATION THROUGH MANAGING RESEARCH FUNDING SCHEMES, MEASURING RESEARCH EXCELLENCE AND PROVIDING ADVICE</b>	<b>BUDGET* 2016–17 \$'000 (A)</b>	<b>ACTUAL EXPENSES 2016–17 \$'000 (B)</b>	<b>VARIATION 2016–17 \$'000 (A)–(B)</b>
<b>Program 1.1: Discovery—Research and research training</b>			
<b>Administered expenses</b>			
Ordinary annual services (Appropriation Act No. 1)	1,112	1,319	(207)
Special appropriations	481,390	448,610	32,780
Total for Program 1.1	482,502	449,928	32,574
<b>Program 1.2: Linkage—Cross-sector research partnerships</b>			
<b>Administered expenses</b>			
Ordinary annual services (Appropriation Act No. 1 and No. 3)	1,455	1,295	160
Special appropriations	253,973	297,808	(43,835)
Special accounts	9,000	9,000	0
Total for Program 1.2	264,428	308,103	(43,675)
<b>Program 1.3: Excellence in Research for Australia</b>			
<b>Administered expenses</b>			
Ordinary annual services (Appropriation Act No. 1 and No. 3)	4,348	1,540	2,808
Total for Program 1.3	4,348	1,540	2,808
<b>Program 1.4: ARC Departmental</b>			
<b>Departmental expenses</b>			
Departmental appropriation <sup>1</sup>	21,846	18,511	3,335
Expenses not requiring appropriation in the budget year	4,416	3,713	703
Outcome 1: Totals by appropriation type			
Administered expenses			
Ordinary annual services (Appropriation Act No. 1)	6,915	4,153	2,762
Special appropriations	735,363	746,418	(11,055)
Special Accounts	9,000	9,000	0
Departmental expenses			
Departmental appropriation <sup>1</sup>	21,846	18,511	3,335
Expenses not requiring appropriation in the budget year	4,416	3,713	703
Total expenses for Outcome 1	777,540	781,794	(4,254)
Average staffing level (number)	<b>2016–17</b>	<b>2015–16</b>	
	114	117	

\* Full-year budget, including any subsequent adjustment made to the 2016–17 budget at 2016–17 Additional Estimates and 2017–18 Budget.

<sup>1</sup> Departmental appropriation combines ordinary annual services (Appropriation Act No. 1) and retained revenue receipts under section 74 of the PGPA Act.

# Appendix 5 Other mandatory information

This appendix provides mandatory information referenced in Part 5 Management and Accountability.

## ADVERTISING AND MARKET RESEARCH

Under section 311(A) of the *Commonwealth Electoral Act 1918*, agencies are required to report in their annual report on payments made to advertising agencies, market research organisations, polling organisations, direct mail organisations and media advertising organisations.

During 2016–17, the ARC paid \$969 for advertising costs to Dentsu Mitchell Media Australia Pty Ltd. The advertising consisted of non-campaign advertisements for ARC funding schemes.

During 2016–17, the ARC did not employ the services of any market research, polling or direct mail organisations.

## SAFE AND HEALTHY WORK ENVIRONMENT

Under the *Work Health and Safety Act 2011* (WHS Act), agencies are required to report in their annual report on the following matters:

- initiatives taken during the year to ensure the health, safety and welfare of ARC workers
- health and safety outcomes achieved as a result of these initiatives
- statistics of any notifiable incidents of which the ARC became aware during the year that arose out of the conduct of businesses or undertakings by the agency
- any investigations conducted during the year that related to businesses or undertakings conducted by the ARC, including details of all notices given to the entity during the year under Part 10 of the WHS Act
- such other matters as are required by the guidelines approved on behalf of the Parliament by the Joint Committee of Public Accounts and Audit.

### Health and safety initiatives

During the year the ARC continued to:

- hold Work Health and Safety (WHS) meetings
- provide first aid training to nominated first aid officers
- provide employer-subsidised eyesight testing for screen-based work
- provide training for fire wardens and health and safety representatives
- provide influenza vaccinations to employees and contractors
- organise workstation assessments where required
- provide online WHS training
- organise health checks.

## Health and safety outcomes

No incident(s) were reported to the Director, People and Services, in accordance with the ARC's incident notification and reporting procedures.

## Notifiable incidents

The ARC had no notifiable incidents during 2016–17. Under the WHS Act, a notifiable incident is one involving the death of a person, serious injury or illness of a person, or a dangerous incident.

## Investigations including details of all notices

The ARC was not issued with any WHS notices and there were no WHS investigations undertaken during 2016–17.

## Any other matters

There are no other matters required by the guidelines.

# ECOLOGICALLY SUSTAINABLE DEVELOPMENT AND ENVIRONMENTAL PERFORMANCE

Under section 516A of the *Environment Protection and Biodiversity Conservation Act 1999*, Commonwealth entities have a statutory requirement to report against two criteria in their annual reports:

- how they accord with and contribute to ecologically sustainable development (ESD)
- their environmental performance, that is, the impact their activities have on the natural environment, how these are mitigated and how they will be further mitigated.

## Accordance with and contribution to ESD

### **Overview**

Under the National Competitive Grants Program (NCGP) the ARC provides funding support for research in all disciplines, including issues of national significance such as health, social welfare, defence, transport, communications, and the environment.

The ARC is also responsible for Excellence in Research for Australia (ERA) and the Engagement and Impact (EI) assessment. ERA identifies and promotes excellence across all research fields in Australia's higher education institutions. Building on this knowledge enables the maximisation of research investment, the co-location of research expertise, collaboration across government and business and the realisation of innovation opportunities. The EI assessment examines how universities are translating their research into economic, social and other benefits and encourages greater collaboration between universities, industries and other end-users of research.

### **Accordance with principles of ESD**

Accordance of the ARC's activities with the ESD principles is outlined in Table A5.

**Table A5: Principles of Ecologically Sustainable Development and ARC activities**

PRINCIPLE	ARC ACTIVITIES
Integration: decision making processes should effectively integrate both long-term and short-term economic, environmental, social and equitable considerations	Each NCGP funding scheme includes the selection criterion: Will the proposed research maximise economic, environmental, social, health and/or cultural benefit to Australia? Proposals are assessed through a competitive peer review process.
Intergenerational: if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation	The NCGP provides funding for research in all disciplines including research relevant to ecologically sustainable development and environmental protection. ERA identifies and promotes excellence across all research fields in Australia's higher education institutions. One aim is to build research excellence resulting in outcomes for Australia.
Biodiversity: the conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making	All ARC funded projects must comply with ethics and research practice requirements including the Australian Code for the Responsible Conduct of Research. The Code includes the requirement that researchers should conduct research so as to minimise adverse effects on the wider community and the environment.
Valuation: improved valuation, pricing and incentive mechanisms should be promoted.	The ARC complies with the Commonwealth Procurement Guidelines ensuring that any procurement takes into consideration, among other factors, the environmental sustainability of the proposed goods and services.

### ***NCGP outcomes***

Of 1346 NCGP projects awarded funding commencing in 2016–17, 185 involved research relevant to the Australian Government Science and Research Priority area of 'Environmental Change'. These projects were allocated total funding of \$152.4 million including:

- \$33.8 million awarded to the 2017 ARC Centre of Excellence of Australian Biodiversity and Heritage. This centre aims to track the changes to Australia's environment, to examine the processes responsible for the changes and the lessons that can be used to adapt to Australia's changing environment
- \$30.1 million awarded to the 2017 ARC Centre of Excellence for Climate Extremes—the world's first fully integrated centre focussed explicitly on the understanding and prediction of climate extremes, launched in July 2017.

The ARC also funded a range of ongoing research projects conducting environment-related research. Examples of larger scale projects funded include:

- the ARC Centre of Excellence for Climate System Science (established 2011) which is aimed at building on and improving existing understanding of the modelling of regional climates to enable enhanced adaptation to and management of climate change, particularly in the Australian region

- the ARC Centre of Excellence for Environmental Decisions (established 2011) which will generate the fundamental knowledge and tools needed to make the best use of available resources for conservation. It will provide new techniques for assessing what resources are required and innovative ways for learning from our investment decisions
- the ARC Centre of Excellence for Integrated Coral Reef Studies (established 2014) which aims to provide the scientific knowledge necessary for sustaining ecosystem goods and services of the world's coral reefs, which support the livelihoods and food security of millions of people in the tropics.

## Environmental performance

The ARC's daily operational activities have an impact on the environment through the use of electricity, vehicles, water, paper and other materials, and the generation of waste.

Measures to minimise this impact are outlined below.

### ***Building***

The ARC leases office space in 11 Lancaster Place, Canberra Airport, Canberra. This location houses one of the largest tri-generation plants in Australia. Tri-generation is a process where natural gas is used as the single input source of energy to generate electricity. Excess energy that would have been lost during the production of electricity is used to heat the buildings in winter and cool them in summer.

In addition to producing three forms of energy, tri-generation provides efficiencies of 90 per cent. This far surpasses the Commonwealth Green Lease Requirement of 4.5 Star NABERS (the National Australian Building Environment Rating System). It also equates to less than half the carbon dioxide emissions of a 5 Star NABERS building.

### ***Energy***

ARC office lighting operates on motion sensors and automatically switches off if no movement is detected for a specified period of time.

The ARC undertakes an electrical audit of any personal devices to be used on ARC premises. The audit applies a reasonableness test, considering key priorities, including cost, productivity and environmental impact. Devices that do not meet the requirements of this test cannot be used on ARC premises.

In 2016–17, ARC staff participated in the 'Earth Hour 2017' initiative held on 25 March 2017. Earth Hour is a 'lights out' event designed to draw attention to tackling global warming. This year marked the tenth anniversary of the initiative as a global phenomenon.

### **Information management**

In accordance with the Government's *Digital Transformation Policy* the ARC has committed to digital information management practices and is transitioning to primarily digital record keeping.

In 2016–17, the ARC:

- conducted a stocktake to identify paper files that could be destroyed to help achieve more efficient storage and management
- upgraded its intranet to improve information sharing with staff. The intranet is the primary mechanism to engage with staff about matters affecting the whole agency
- established the Information Governance Committee. The Information Governance Committee is responsible for all information matters ranging from compliance, strategy and infrastructure to metadata standards and privacy.

### **Information and Communication Technology services**

During 2016–17, the ARC continued to pursue the principles of the Government's *ICT Sustainability Plan*, which ceased in 2015, including:

- sustainable procurement (for example, using recycled office paper and ensuring appropriate resource reuse or recovery for mobiles, toner cartridges and ICT equipment)
- managing resource consumption and demand (for example, monitoring desktop computers to printer ratios)
- managing waste (for example, ensuring e-waste is used or recycled and ICT packaging is recycled)
- managing energy consumption (for example, ensuring desk top computers are switched off after hours).

During 2017–18, the ARC will finalise a review of ICT services environmental reporting processes within the agency.



# PART 8 AIDS TO ACCESS

List of figures and tables	172
Abbreviations and acronyms	174
Glossary	177
Compliance index	180
Alphabetical index	186

# List of figures and tables

## FIGURES

NO.	TITLE	PAGE
1	Structure of the Australian Research Council (at 30 June 2017)	16
2	ARC Outcome and Programs	17
3	Mapping the ARC Outcome and Programs to the ARC's Purpose	19
4	Proportion of new projects that involve research in Science and Research Priority areas by scheme, new grants commencing in 2016–17	26
5	ARC funding by Science and Research Priority area, new grants commencing in 2016–17	26
6	Linkage Projects scheme, average number of partner organisations per ARC-funded research project, 2013–14 to 2016–17	30
7	Ratio of funding pledged by partner organisations to funding awarded by the ARC, 2013–14 to 2016–17	31
8	Proportion of ARC-funded research projects involving international collaboration, 2013–14 to 2016–17	33
9	Proportion of ARC-funded research projects involving international collaboration by scheme, new grants commencing in 2016–17	33
10	Departmental financial performance, 2012–13 to 2017–18	49
11	Administered financial performance, 2012–13 to 2017–18	49
12	External planning and reporting framework, 2016–17	85

## TABLES

NO.	TITLE	PAGE
1	Summary of performance reported in the Annual Performance Statement	10
2	Type of partner organisation, proportion of total number (2014 to 2016)	68
3	Membership of the ARC Audit Committee, 2016–17	82
4	Membership of the ARC Advisory Council, 2016–17	83
5	Membership of the Australia Research Integrity Committee, 2016–17	85
6	Employment performance (at 30 June 2016 and 2017)	94
7	Number of staff by substantive classification level (at 30 June 2016 and 2017)	94
8	Number of staff by full-time/part-time employment arrangements (at 30 June 2016 and 2017)	95
9	Number of staff by gender (at 30 June 2016 and 2017)	96
10	Number of staff by employment arrangement (at 30 June 2016 and 2017)	97
11	Salary ranges of non-SES staff by classification level (at 30 June 2017)	98
A1	Discovery Program funding commencing in 2014–15 to 2016–17	157
A2	Linkage Program funding commencing in 2014–15 to 2016–17	158
A3	ARC Resource Statement 2016–17	163
A4	ARC Expenses for Outcome 1 2016–17	164
A5	Principles of Ecologically Sustainable Development and ARC activities	167

# Abbreviations and acronyms

TERM	DESCRIPTION
<b>A</b>	
ABS	Australian Bureau of Statistics
AIIM	Australian Institute for Innovative Materials
AITHM	Australian Institute of Tropical Health and Medicine
ANAO	Australian National Audit Office
ANSTO	Australian Nuclear Science and Technology Organisation
APS	Australian Public Service
APSC	Australian Public Service Commission
ARC	Australian Research Council
ARC Act	<i>Australian Research Council Act 2001</i>
ARIC	Australian Research Integrity Committee
AWA	Australian Workplace Agreement
<b>B</b>	
BSB	Biological Sciences and Biotechnology
<b>C</b>	
CEO	Chief Executive Officer
CNBP	ARC Centre of Excellence for Nanoscale Biophotonics
CP	corporate plan
CSIRO	Commonwealth Scientific and Industrial Research Organisation
<b>D</b>	
DE	Discovery Early Career Researcher Award scheme
DECRA	Discovery Early Career Researcher Award scheme
DP	Discovery Projects scheme
<b>E</b>	
EGM	Executive General Manager
EI	Engagement and Impact
EOI	expression of interest
ERA	Excellence in Research for Australia
ESD	ecologically sustainable development
ESIA	Ear Science Institute Australia
<b>F</b>	
FGR	First Graphite Resources
FL	Australian Laureate Fellowships scheme
FOI Act	<i>Freedom of Information Act 1982</i>
FoR	Field of Research

TERM	DESCRIPTION
FT	Future Fellowships scheme
<b>G</b>	
GQD	graphene quantum dot
GST	Goods and Services Tax
<b>H</b>	
HCA	Humanities and Creative Arts
HDR	higher degree by research
HREA	Human Research Ethics Application
<b>I</b>	
ICT	information and communications technology
IFA	Individual Flexibility Agreements
IN	Discovery Indigenous scheme
IPS	Information Publication Scheme
IT	information technology
ITRH	Industrial Transformation Research Hubs scheme
ITRP	Industrial Transformation Research Program
ITTC	Industrial Transformation Training Centres scheme
<b>J</b>	
JDRF	Juvenile Diabetes Research Foundation
<b>L</b>	
LIEF	Linkage Infrastructure, Equipment and Facilities scheme
LP	Linkage Projects scheme
<b>N</b>	
NABERS	National Australian Building Environment Rating System
NCGP	National Competitive Grants Program
NHMRC	National Health and Medical Research Council
NISA	National Innovation and Science Agenda
NO <sub>x</sub>	nitrogen oxide
<b>O</b>	
ORCID	Open Researcher and Contributor ID
<b>P</b>	
PBS	Portfolio Budget Statements
PGPA Act	<i>Public Governance, Performance and Accountability Act 2013</i>
PGPA Rule	<i>Public Governance, Performance and Accountability Rule 2014</i>
PhD	Doctor of Philosophy
Plan	Fraud Control Plan

TERM	DESCRIPTION
PRaDA	Pattern Recognition and Data Analysis
PS Act	<i>Public Service Act 1999</i>
PSEMIS	Physical Sciences, Engineering, Mathematics and Information Sciences
<b>R</b>	
RMS	Research Management System
ROPE	Research Opportunity and Performance Evidence
<b>S</b>	
SABRE	Sodium iodide with Active Background REjection
SBE	Social, Behavioural and Economic sciences
SES	Senior Executive Service
SME	Small to Medium Enterprises
SMG	Senior Management Group
SO <sub>x</sub>	sulphur oxides
STEM	Science, Technology, Engineering and Mathematics
<b>T</b>	
TEPO	Trace Elements in Past Oceans
<b>U</b>	
UA	Universities Australia
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNSW	The University of New South Wales
UOW	University of Wollongong
UTAS	University of Tasmania
UWA	The University of Western Australia
<b>W</b>	
WA	Western Australia
WHS	work health and safety
WHS Act	<i>Work Health and Safety Act 2011</i> (Commonwealth)

# Glossary

## ***Administered funding***

Funding that is managed by agencies on behalf of the government.

## ***Chief investigator***

A researcher who satisfies the eligibility criteria for a Chief Investigator under the Discovery Program or Linkage Program funding rules; and takes responsibility for the conduct of an ARC-funded project.

## ***Departmental items***

Those assets, liabilities, revenues and expenses controlled by agencies or authorities and used in producing their outputs.

## ***Discovery***

Program 1.1 of the 2016–17 Portfolio Budget Statements, which provides funding for investigator-initiated research projects and research fellowships and awards. The Discovery Program comprises the Australian Laureate Fellowships, Discovery Early Career Researcher Award, Discovery Indigenous, Discovery Projects and Future Fellowships schemes.

## ***Early career researcher***

A researcher who has held a PhD or equivalent qualification for a period less than or equal to five years at the time of their application.

## ***Excellence in Research for Australia***

Program 1.3 of the 2016–17 Portfolio Budget Statements, which provides Australian Government, industry, business and the wider community assurance of the excellence of research conducted in Australia's higher education institutions through an evaluation framework that identifies universities and disciplines that are internationally competitive and highlights areas where there are opportunities for further development and investment.

## ***Field of Research (FoR) classification***

A classification based on the methodology used in the research and development that is being considered. The Australian Bureau of Statistics (ABS) develops the FoR codes in consultation with stakeholders in the research sector. Full code descriptions are available on the ABS website: [www.abs.gov.au](http://www.abs.gov.au).

## ***Final report***

A report to the ARC that researchers must submit within 12 months of completing their research project. The report includes a range of data and information including a description of research outcomes, academic and commercialisation outputs and details of collaboration.

### ***Funding agreement***

The agreement entered into by the ARC and an Administering Organisation when a proposal from that organisation is approved for funding.

### ***Funding round***

The year funding for new grants commences.

### ***Funding rules***

Documents published on the [ARC website](#) for each funding scheme which provide applicants with information about a scheme, eligibility requirements, the application, selection and approval processes, and requirements for the administration of funding.

### ***Linkage***

Program 1.2 of the 2016–17 Portfolio Budget Statements, which provides funding for research projects, infrastructure, hubs and centres that foster collaboration among researchers and research teams in Australia and internationally, and with industry and other end-users of research. The Linkage Program comprises the ARC Centres of Excellence; Industrial Transformation Research Hubs; Industrial Transformation Training Centres; Linkage Infrastructure, Equipment and Facilities; Linkage Learned Academies Special Projects; Linkage Projects; Special Research Initiatives; and Supporting Responses to Commonwealth Science Council Priorities schemes.

### ***Mid-career researchers***

A researcher with between five and 15 years' research experience since the award of a PhD or equivalent qualification at the time of their application.

### ***National Competitive Grants Program***

The National Competitive Grants Program (NCGP) comprises the Discovery and Linkage Programs, under which the ARC funds a range of complementary schemes to support the highest-quality fundamental and applied research, research training and collaboration or partnerships and infrastructure across all research disciplines.

### ***National Research Priorities***

A set of priority areas identified by the Australian Government. In 2012–13 the Australian Government's four National Research Priorities were: An environmentally sustainable Australia (Environment); Promoting and maintaining good health (Health); Frontier technologies for building and transforming Australian industries (Frontier technologies); and Safeguarding Australia. In 2013 the National Research Priorities were replaced by Strategic Research Priorities.

### ***Open access***

The idea that research outcomes, particularly those arising from publicly funded research projects, should be available as broadly as possible.

**Partner investigator**

A researcher who: satisfies the eligibility criteria for a Partner Investigator under the Discovery Program or Linkage Program funding rules; and takes significant intellectual responsibility for the research.

**Partner organisations**

National or international organisations that satisfy the eligibility criteria for a partner organisation as defined under Linkage funding rules, and contribute to the research project in accordance with the requirements of the scheme.

**Peer review**

Evaluation of research proposals or outputs by experts who assess individual research proposals within their field of research or across a broader disciplinary area on the basis of established selection criteria.

**Science and Research Priority areas**

A set of priority areas identified by the Australian Government that replaced the Strategic Research Priority areas in 2015. The Australian Government identified nine Science and Research Priority areas and associated Practical Research Challenges. The priorities, developed in consultation with leaders from industry, research and government, are designed to focus Australian Government support for science and research on the most important challenges facing Australia. The current Science and Research Priority areas are: Food, Soil and Water, Transport, Cybersecurity, Energy, Resources, Advanced Manufacturing, Environmental Change, and Health. Each priority is associated with three to four Practical Research Challenges, which aim to guide investment and activity in areas where the Government considers Australia must maintain a strong research and innovation capability.

**Strategic Research Priorities**

A set of priority areas identified by the Australian Government that replaced the National Research Priority areas in 2013. They are Living in a changing environment; Promoting population health and wellbeing; Managing our food and water assets; Securing Australia's place in a changing world; and Lifting productivity and economic growth. In 2015, the Strategic Research Priorities were replaced by the Science and Research Priority areas.

**Success rate**

The number of awards made in a year or funding round as a percentage of the total number of applications. Withdrawn applications are excluded from calculations.

# Compliance index

## ***Australian Research Council Act 2001—List of requirements***

REFERENCE	DESCRIPTION	REQUIREMENT	PAGE(S)
46	The annual report prepared by the Chief Executive Officer (CEO) and given to the Minister under section 46 of the <i>Public Governance, Performance and Accountability Act 2013</i> (PGPA Act) for a period must also deal with: (a) any matters required by other provisions of this Act to be dealt with in the report; and (b) any other matters that the Minister, by notice in writing to the CEO, requires to be dealt with in the report. Note: A provision of this Act that require matters to be dealt with in the report is subsection 33C(3).	Mandatory	iii
33(c)	Particulars of any directions given by the Minister under subsection (1) must be (b) included in the annual report prepared by the CEO and given to the Minister under section 46 of the PGPA Act, for the period in which the direction is given.	Mandatory	iii

## ***Annual reports for non-Corporate Commonwealth entities—List of requirements***

REFERENCE	PART / DESCRIPTION	REQUIREMENT	PAGE(S)
17AD(g)	Letter of transmittal		
17AI	A copy of the letter of transmittal signed and dated by the accountable authority on the date the final text is approved, with a statement that the report has been prepared in accordance with section 46 of the PGPA Act and any enabling legislation that specifies additional requirements in relation to the annual report.	Mandatory	iii
17AD(h)	Aids to access		
17AJ(a)	Table of contents.	Mandatory	iv – v
17AJ(b)	Alphabetical index.	Mandatory	186
17AJ(c)	Glossary of abbreviations and acronyms.	Mandatory	177–9
17AJ(d)	List of requirements.	Mandatory	180–5
17AJ(e)	Details of contact officer.	Mandatory	vii
17AJ(f)	Entity's website address.	Mandatory	ii
17AJ(g)	Electronic address of report.	Mandatory	ii
17AD(a)	Review by accountable authority		
17AD(a)	A review by the accountable authority of the entity.	Mandatory	2–5

REFERENCE	PART / DESCRIPTION	REQUIREMENT	PAGE(S)
17AD(b)	Overview of the entity		
17AE(1)(a)(i)	A description of the role and functions of the entity.	Mandatory	14–15
17AE(1)(a)(ii)	A description of the organisational structure of the entity.	Mandatory	16
17AE(1)(a)(iii)	A description of the outcomes and programs administered by the entity.	Mandatory	17
17AE(1)(a)(iv)	A description of the purposes of the entity as included in corporate plan.	Mandatory	18
17AE(1)(b)	An outline of the structure of the portfolio of the entity.	Mandatory for portfolio departments	n/a
17AE(2)	Where the outcomes and programs administered by the entity differ from any Portfolio Budget Statement, Portfolio Additional Estimates Statement or other portfolio estimates statement that was prepared for the entity for the period, include details of variation and reasons for change.	If applicable, Mandatory	n/a
17AD(c)	Report on performance of the entity		
	Annual performance statements		
17AD(c)(i);16F	Annual performance statement in accordance with paragraph 39(1)(b) of the PGPA Act and section 16F of the PGPA Rule.	Mandatory	26–52
17AD(c)(ii)	Report on financial performance		
17AF(1)(a)	A discussion and analysis of the entity's financial performance.	Mandatory	48–9
17AF(1)(b)	A table summarising the total resources and total payments of the entity.	Mandatory	163–4
17AF(2)	If there may be significant changes in the financial results during or after the previous or current reporting period, information on those changes, including: the cause of any operating loss of the entity; how the entity has responded to the loss and the actions that have been taken in relation to the loss; and any matter or circumstances that it can reasonably be anticipated will have a significant impact on the entity's future operation or financial results.	If applicable, Mandatory	53–4
17AD(d)	Management and accountability		
	Corporate governance		
17AG(2)(a)	Information on compliance with section 10 (fraud systems).	Mandatory	78
17AG(2)(b)(i)	A certification by the accountable authority that fraud risk assessments and fraud control plans have been prepared.	Mandatory	iii
17AG(2)(b)(ii)	A certification by the accountable authority that appropriate mechanisms for preventing, detecting incidents of, investigating or otherwise dealing with, and recording or reporting fraud that meet the specific needs of the entity are in place.	Mandatory	iii

REFERENCE	PART / DESCRIPTION	REQUIREMENT	PAGE(S)
17AG(2)(b)(iii)	A certification by the accountable authority that all reasonable measures have been taken to deal appropriately with fraud relating to the entity.	Mandatory	iii
17AG(2)(c)	An outline of structures and processes in place for the entity to implement principles and objectives of corporate governance.	Mandatory	78–89
17AG(2)(d)–(e)	A statement of significant issues reported to Minister under paragraph 19(1)(e) of the PGPA Act that relates to noncompliance with Finance law and action taken to remedy non-compliance.	If applicable, Mandatory	89
	<b>External scrutiny</b>		
17AG(3)	Information on the most significant developments in external scrutiny and the entity's response to the scrutiny.	Mandatory	90–1
17AG(3)(a)	Information on judicial decisions and decisions of administrative tribunals and by the Australian Information Commissioner that may have a significant effect on the operations of the entity.	If applicable, Mandatory	90
17AG(3)(b)	Information on any reports on operations of the entity by the Auditor-General (other than report under section 43 of the PGPA Act), a Parliamentary Committee, or the Commonwealth Ombudsman.	If applicable, Mandatory	90–1
17AG(3)(c)	Information on any capability reviews on the entity that were released during the period.	If applicable, Mandatory	91
	<b>Management of human resources</b>		
17AG(4)(a)	An assessment of the entity's effectiveness in managing and developing employees to achieve entity objectives.	Mandatory	92–3
17AG(4)(b)	Statistics on the entity's Australian Public Service (APS) employees on an ongoing and nonongoing basis; including the following: statistics on staffing classification level; statistics on full-time employees; statistics on part-time employees; statistics on gender; statistics on staff location; statistics on employees who identify as Indigenous.	Mandatory	94–6
17AG(4)(c)	Information on any enterprise agreements, individual flexibility arrangements, Australian workplace agreements, common law contracts and determinations under subsection 24(1) of the <i>Public Service Act 1999</i> .	Mandatory	92
17AG(4)(c)(i)	Information on the number of SES and non-SES employees covered by agreements etc identified in paragraph 17AD(4)(c).	Mandatory	97
17AG(4)(c)(ii)	The salary ranges available for APS employees by classification level.	Mandatory	98
17AG(4)(c)(iii)	A description of non-salary benefits provided to employees.	Mandatory	98

REFERENCE	PART / DESCRIPTION	REQUIREMENT	PAGE(S)
17AG(4)(d)(i)	Information on the number of employees at each classification level who received performance pay.	If applicable, Mandatory	98
17AG(4)(d)(ii)	Information on aggregate amounts of performance pay at each classification level.	If applicable, Mandatory	98
17AG(4)(d)(iii)	Information on the average amount of performance payment, and range of such payments, at each classification level.	If applicable, Mandatory	98
17AG(4)(d)(iv)	Information on aggregate amount of performance payments.	If applicable, Mandatory	98
	<b>Assets management</b>		
17AG(5)	An assessment of the effectiveness of assets management where asset management is a significant part of the entity's activities.	If applicable, Mandatory	99
	<b>Purchasing</b>		
17AG(6)	An assessment of entity performance against the <i>Commonwealth Procurement Rules</i> .	Mandatory	100
	<b>Consultants</b>		
17AG(7)(a)	A summary statement detailing the number of new contracts engaging consultants entered into during the period; the total actual expenditure on all new consultancy contracts entered into during the period (inclusive of GST); the number of ongoing consultancy contracts that were entered into during a previous reporting period; and the total actual expenditure in the reporting year on the ongoing consultancy contracts (inclusive of GST).	Mandatory	101
17AG(7)(b)	A statement that "During [reporting period], [specified number] new consultancy contracts were entered into involving total actual expenditure of \$[specified million]. In addition, [specified number] ongoing consultancy contracts were active during the period, involving total actual expenditure of \$[specified million]".	Mandatory	101
17AG(7)(c)	A summary of the policies and procedures for selecting and engaging consultants and the main categories of purposes for which consultants were selected and engaged.	Mandatory	101
17AG(7)(d)	A statement that "Annual reports contain information about actual expenditure on contracts for consultancies. Information on the value of contracts and consultancies is available on the AusTender website."	Mandatory	101

REFERENCE	PART / DESCRIPTION	REQUIREMENT	PAGE(S)
	Australian National Audit Office access clauses		
17AG(8)	If an entity entered into a contract with a value of more than \$100,000 (inclusive of GST) and the contract did not provide the Auditor-General with access to the contractor's premises, the report must include the name of the contractor, purpose and value of the contract, and the reason why a clause allowing access was not included in the contract.	If applicable, Mandatory	102
	Exempt contracts		
17AG(9)	If an entity entered into a contract or there is a standing offer with a value greater than \$10,000 (inclusive of GST) which has been exempted from being published in AusTender because it would disclose exempt matters under the FOI Act, the annual report must include a statement that the contract or standing offer has been exempted, and the value of the contract or standing offer, to the extent that doing so does not disclose the exempt matters.	If applicable, Mandatory	102
	Small business		
17AG(10)(a)	A statement that "[Name of entity] supports small business participation in the Commonwealth Government procurement market. Small and Medium Enterprises (SME) and Small Enterprise participation statistics are available on the Department of Finance's website."	Mandatory	103
17AG(10)(b)	An outline of the ways in which the procurement practices of the entity support small and medium enterprises.	Mandatory	103
17AG(10)(c)	If the entity is considered by the Department administered by the Finance Minister as material in nature—a statement that "[Name of entity] recognises the importance of ensuring that small businesses are paid on time. The results of the Survey of Australian Government Payments to Small Business are available on the Treasury's website."	If applicable, Mandatory	103
	Financial Statements		
17AD(e)	Inclusion of the annual financial statements in accordance with subsection 43(4) of the PGPA Act.	Mandatory	108–50

REFERENCE	PART / DESCRIPTION	REQUIREMENT	PAGE(S)
17AD(f)	Other mandatory information		
17AH(1)(a)(i)	If the entity conducted advertising campaigns, a statement that "During [reporting period], the [name of entity] conducted the following advertising campaigns: [name of advertising campaigns undertaken]. Further information on those advertising campaigns is available at [address of entity's website] and in the reports on Australian Government advertising prepared by the Department of Finance. Those reports are available on the Department of Finance's website."	If applicable, Mandatory	n/a
17AH(1)(a)(ii)	If the entity did not conduct advertising campaigns, a statement to that effect.	If applicable, Mandatory	104
17AH(1)(b)	A statement that "Information on grants awarded by [name of entity] during [reporting period] is available at [address of entity's website]."	If applicable, Mandatory	104
17AH(1)(c)	Outline of mechanisms of disability reporting, including reference to website for further information.	Mandatory	104
17AH(1)(d)	Website reference to where the entity's Information Publication Scheme statement pursuant to Part II of FOI Act can be found.	Mandatory	104
17AH(1)(e)	Correction of material errors in previous annual report.	If applicable, Mandatory	105
17AH(2)	Information required by other legislation.	Mandatory	105, 163–7

Source: Resource Management Guide No. 135 Annual reports for non-corporate Commonwealth entities (May 2017, Department of Finance)

# Alphabetical index

Page numbers in *italics indicate photographs*.

## A

abbreviations 174  
Aboriginal and Torres Strait Islander employees 96  
Accountable Authority Instructions 100, 101  
acronyms 174  
address ii  
advertising  
    campaigns 104  
    expenditure 165  
Advisory Council 83  
agency resource statements 163-4  
Annual Performance Statement 18, 19, 22-47  
    Introductory statement 22  
    Purpose 22  
    Key Activity 1: Funding the highest quality research 23-36  
    Key Activity 2: Assessing the quality, engagement and impact of research 37-41  
    Key Activity 3: Providing advice on research matters 42-47  
annual report  
    Correction of information published in previous annual reports 105  
    list of requirements 180-5  
Antarctic research 70  
appeals 89  
Appeals Committee, NCGP 84  
APS Code of Conduct 88  
APS Values 88, 93  
ARC Centres of Excellence 155, 158  
ARC College of Experts 83  
ARC Enterprise Agreement 92  
*ARC Gender Equality Action Plan* 74  
*ARC Open Access Policy* 3  
*ARC Research Integrity and Research Misconduct Policy* 3, 45, 88  
*ARC Research Workforce Statement* 3, 45, 88  
*ARC Statement of Support and Action Plan for Aboriginal and Torres Strait Islander Researchers* 9, 74  
*ARC Statement of Support and Expectations for Gender Equality* 3, 4, 45, 74

*ARC Statement of Support for Interdisciplinary Research* 3  
assessors, ethical conduct by 88  
assets management 99, 183  
audit  
    Auditor-General's Report on financial statements 109-10  
    Australian National Audit Office reports 90  
    internal arrangements 86  
    see also Australian National Audit Office  
Audit Committee 78, 82, 86, 87  
AusTender 101, 102, 183, 184  
Australian Academy of Science Awards 159  
*Australian Code for the Responsible Conduct of Research* 15, 42, 44, 45, 84, 89, 167  
Australian Laureate Fellowships 4, 9, 23, 24, 28, 61, 154, 157, 177,  
Australian Museum Eureka Prizes 160  
Australian National Audit Office 90, 102, 184  
*Australian Research Council Act 2001* iii, 14, 81  
Australian Research Integrity Committee 15, 84-5, 89  
Australian Workplace Agreements 92  
awards see prizes and awards

## B

Birmingham, Simon 8, 69, 71  
Boosting Commercial Returns of Research 44  
Buckman, Stephen 16, 79, 80  
business continuity 81, 87  
Byrne, Professor Aidan 78

## C

Cameron, Dr Fiona 16, 79, 80  
capability reviews 91  
case studies 52-75  
ARC Centres of Excellence 155, 158  
Chief Executive Officer  
    functions and responsibilities 80  
    letter of transmittal iii  
    review by 2-5  
Client Service Charter 89

Collaboration 29-31  
 college of experts 83  
 committees 81-5  
   ARC Advisory Council 83  
   ARC Audit Committee 82  
   ARC governance 81-3  
   Australian Research Integrity Committee 84-5  
 Excellence in Research for Australia 6, 11, 14,  
   17, 37-8, 72, 80, 93, 113, 164, 166,  
   177  
   National Competitive Grants Program 3, 6, 8,  
   14, 19, 23, 48, 80, 83-4, 93, 118, 154,  
   157, 166, 178  
   Senior Management Group 81, 93  
 common law contracts 89  
 Commonwealth Ombudsman, reports by 91  
*Commonwealth Procurement Rules* 100  
 complaints handling 89  
 compliance index 180-5  
 conflict of interest 88, 93  
 consultants 101  
 contact details vii  
 corporate plan 18, 19, 856  
 correction of errors 105

## D

Deleva, Julija 16, 79, 80  
 Department of Education and Training 15, 90  
 Department of Industry, Innovation and Science 15  
 disability reporting 104  
 disaster recovery 87  
 Discovery Early Career Researcher Award 23, 24,  
 28, 53, 62, 154, 157, 159, 161, 177  
 Discovery Indigenous 154, 157  
 Discovery Program 23, 24, 154-5  
 Discovery Projects 154, 157  
 diversity 96-7

## E

early career researchers 27-8  
 ecologically sustainable development 166-8  
 eLearning 93  
 Eligibility Committee, NCGP 84  
 Emery, Kylie 16, 79, 80

employment arrangements 92, 97-8  
 engagement and impact assessment 2, 6, 14, 40  
 Engagement and Impact Steering Committee 84  
 Engagement and Impact Technical Working Group  
   84  
 enterprise agreements 92  
 environmental performance 166-9  
   building 168  
   energy 168  
   information management 169  
   information and communication technology  
     services 169  
 ethical standards 88-9  
 Excellence in Research for Australia 14, 37-41  
   case studies 72  
   committees 84  
   deliverables 37  
   description 37  
   performance 38-41  
 executive staff 78-81  
 exempt contracts 102  
 external scrutiny 90-1

## F

figures, list of 172  
 financial performance 48-9  
   administered activities 49  
   agency resource statements 163-4  
   departmental activities 48-9  
   summary 48  
 financial statements 111-151  
 fraud control iii, 78  
 fraud management 78  
 freedom of information 104  
 Future Fellowships 155, 157

## G

glossary 177-9  
 grant programs 104  
   see also National Competitive Grants Program  
 guide to the report vi

## H

Harvey, Leanne 16, 69, 78 79, 80, 83  
Harmony Day 97  
highlights of 2016–17 6-11  
Howard, Sarah 16, 79, 80  
human research ethics application 44

## I

ICT services 169  
Indigenous employees 96  
Individual Flexibility Arrangements 92  
Industrial Transformation Research Hubs 155, 158  
Industrial Transformation Training Centres 155, 158  
Information Communication Technology services, sustainability of 169  
Information Publication Scheme 104  
Information required by other legislation 105  
in-house training 93  
intellectual property 3  
internal audit 86  
international collaboration 32-4

## J

Jefferson, Therese 16, 79, 80  
judicial decisions 90  
juvenile diabetes 70  
Juvenile Diabetes Research Foundation 70

## K

KPMG 86

## L

Leahey, Trish 16  
Learned Academies Special Projects 156, 158  
legislation 14  
letter of transmittal iii  
Linkage Infrastructure, Equipment and Facilities 155, 158

Linkage Program 23, 24, 155-6  
Linkage Projects 156, 158  
    continuous application process 2, 6, 8  
L'Oreal-UNESCO for Women in Science Fellowships 160

## M

mandatory reporting in annual reports 104-5, 165-9  
market research 104  
Mid-Year Economic and Fiscal Outlook 48  
ministerial directions iii  
Minister for Education and Training, see Birmingham, Simon

## N

NAIDOC week, ARC participation in 97  
National Competitive Grants Program 14  
    case studies 53-71, 73-5  
    committees 83-4  
    deliverables 23  
    description 23  
    funding schemes 10, 17-9, 23, 34, 36, 43, 80-4, 113-9, 154, 164  
    performance 25-36  
    statistics 1189  
    see also Discovery Program; Linkage Program  
National Health and Medical Research Council 15, 42, 43, 44, 84  
*National Innovation and Science Agenda* 6, 15, 43, 48  
National Science Statement 7  
*National Statement on Ethical Conduct in Human Research* 44, 89  
non-compliance with finance law 89  
non-salary benefits 98  
notices under WHS Act 165  
notifiable incidents 165

## O

- operational plan 86
- organisational structure 16
- Outcome 17, 19
  - expenses and resources 125-6
  - programme structure 17

## P

- parliamentary committees 90
- partner organisations 29
- people management 96-101
- performance 22-49
  - Key Activity 1: Funding the highest quality research 23-36
  - Key Activity 2: Assessing the quality, engagement and impact of research 37-41
  - Key Activity 3: Providing advice on research matters 42-7
    - financial 47-9
- Performance and Incentives Working Group 84
- performance framework 17-9
- performance pay 98
- Performance Review of the Innovation, Science and Research System* 6, 7
- planning and reporting 85-6
- policy advice 15, 42-7
  - case studies 73-5
  - delivery, highlights 42
  - description 42
- Portfolio Budget Statements 17, 19
- Prime Minister's Science Prizes 160
- prizes and awards 159-62
- productivity gains 93
- Programs
  - outcome and program structure 17
- Public Governance, Performance and Accountability Act 2013* iii, 17, 81
- Public Service Act 1999* 81
- purchasing 100
- purpose, of ARC 18, 22

## R

- Reconciliation Action Plan 96
- remuneration, of senior executive service staff 89
- Research Management System 48, 68
- researchers
  - ethical conduct 88-9
  - prizes and awards to 159-62
- resources 15
- resource statements 163-4
- Review of Research Policy and Funding Arrangements* 6, 44
- risk 87
- role and functions of the ARC 14-5

## S

- salaries 98
- Science and Research Priorities 6, 25-7, 44, 179
- Scrutiny Committee, NCGP 84
- Senior Executive Service remuneration 89
- Senior Management Group 81, 93
- service delivery 89
- small business procurement 103
- Special Research Initiatives 27, 156, 158
  - see also Antarctic research; Tropical Health and Medicine; juvenile diabetes
- staff**
  - Aboriginal and/or Torres Strait Islander 96
  - classification levels 94
  - diversity 96-7
  - employment arrangements 97-8
  - Enterprise Agreement 92
  - ethical conduct 88
  - executive staff 78-81
  - gender, by employment level 96
  - remuneration 98
  - retention and turnover 92
  - separations by employment level 92
  - statistics 94-6
  - training and development 92-3
  - workplace health and safety 93, 165-6
- stakeholders 15
- State and Territory Awards 161

*Strategic Plan for the Innovation, Science and  
Research System* 6

style conventions vii

Supporting Responses to Commonwealth  
Science Council Priorities 156

## T

tables, list of 173

Thomas, Sue iii, 22, 78, 79

Tompkins, Joanne 16, 79, 81

training and development 92-3

Tropical Health and Medicine 90

## W

website ii

Workforce Diversity Program 96

*Work Health and Safety Act 2011* 93, 105, 165

workforce planning 92

workplace health and safety 93, 165-6

## Y

Young Tall Poppy Science Awards 161-2



The image features a close-up, blue-tinted photograph of a dandelion seed head. The seeds are fine and radiating, with numerous small, clear water droplets clinging to them. The background is a soft, out-of-focus blue, creating a bokeh effect with light spots. The overall mood is serene and natural.

[WWW.ARC.GOV.AU](http://WWW.ARC.GOV.AU)