## Impact Outlook

- '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'
- 'Research and development is undertaken to apply advanced knowledge to problems, acquire new knowledge and as a basis for securing commercial and other benefits of research'

**Ms Leanne Harvey** joined the Australian Research Council (ARC) in 2008, after transferring from (the then) Department of Education, Science and Training. Since then, she has led ARC through a substantial reorganisation to better align the agency with current government agendas. Harvey holds a Bachelor of Business in Accounting from (the now) Charles Sturt University. She moved to providing policy analysis and advice regarding Australia's research sector in 2004. Since joining the Australian Public Service in 1987, her career has seen her involved in social policy initiatives, including leading publicly-funded research, child support and taxation reforms.


### Contact details

**Ms Leanne Harvey**
Executive General Manager

T: +61 26287600
E: info@arc.gov.au
W: www.arc.gov.au

Australian Government
Australian Research Council



# Helping research to flourish

*Creativity is one thing, but guidelines, structure and funding are needed if the true potential of that innovation is to be harnessed.* ***Leanne Harvey****, Executive General Manager of the* ***Australian Research Council (ARC)****, explains the body's efforts to do just that*

**Could you begin by explaining the background behind the Australian Research Council (ARC) – how and when did the Council come about and what is the overarching objective?**

The Australian Research Council (ARC) is a Commonwealth entity within the Australian Government. 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. In seeking to achieve its purpose, ARC provides advice to the government on research matters and administers the National Competitive Grants Program (NCGP), a significant component of Australia's investment in research and development.

ARC is descended from the Australian Research Grants Committee (ARGC) and has functions related to the earlier Commonwealth Universities Research Grants Committee. ARC also acquired responsibilities from the previous Commonwealth Tertiary Education Commission (CTEC).

Over the years, ARC has evolved in function, structure and reporting arrangements. Its leaders and staff have changed, funding levels have fluctuated, some existing schemes have been reinvigorated and new schemes have been created. Throughout this time, ARC's role of supporting excellent research by a system of rigorous peer review has not wavered.

**What kind of advice and guidance does the Australian government look to ARC for?**

An example of the advice provided by ARC to the Australian government is the unique, evidence-based resource, Excellence in Research for Australia (ERA), which informs Australian government research policy and the strategic direction of higher education institutions. ERA provides the government with an objective assessment of the research strengths of Australian universities, identifies which universities are active in which fields of research, and how well each Australian university is performing in each of these disciplines. This information is only available through ERA. The Australian government looks to ARC to supply it with robust evidence-based advice to inform Australian research policy and public investments in research activities.

**Could you expand on the framework of Excellence in Research for Australia (ERA)? How do you go about assessing research efforts and new, emerging areas of research interest?**

ARC was responsible for determining the ERA framework. ERA is Australia's national research quality evaluation framework. It identifies and promotes research excellence across the full spectrum of research activity in Australia's higher education institutions.

Committees of experts determine the ERA ratings against world benchmarks and based on a range of well-established research indicators. The ERA outcomes create incentives for Australian universities to improve the quality of research and identify emerging research areas and opportunities for further development.

As ERA is a comprehensive exercise – that is, universities must submit all eligible research produced over the given reference period – it shows Australia's performance in all research areas, including new and emerging areas.

There have now been three rounds of ERA, so we can also track the performance of the university sector over time. A key feature of the ERA 2015 outcomes was that the number of Australian disciplinary strengths has markedly increased from the previous ERA rounds (to 43 specific disciplines). This means the university sector is now performing strongly in many new areas.

**Can you expand on the Linkage Projects scheme? What do you hope to achieve through the scheme and could you outline any particularly successful collaborations you have helped facilitate?**

The Linkage Projects scheme promotes national and international collaboration and research partnerships between key stakeholders in research and innovation, including higher education institutions, government, business, industry and end-users. Research and development is undertaken to apply advanced knowledge to problems, acquire new knowledge, and as a basis for securing commercial and other benefits of research.

To facilitate successful collaboration between higher education institutions and other parts of the innovation system, Linkage Projects proposals can be submitted at any time and funding outcomes are announced within six months of proposal submission.

The scheme provides funding to eligible organisations to support research and development (R&D) projects that are: (1) collaborative between higher education researchers and other parts of the national innovation system; (2) undertaken to acquire new knowledge, and involve risk or innovation.

Proposals for funding under the scheme must include at least one partner organisation. The partner organisation must make a contribution in cash and/or in kind to the project. The combined contributions for a proposal (the total of the cash and in-kind contributions of the partner organisations) must at least match the total funding requested from ARC.

The objectives of the Linkage Projects scheme are to:
- Support the initiation and/or development of long-term strategic research alliances between higher education organisations and other organisations, including industry and other research end-users, in order to apply advanced knowledge to problems and/or to provide opportunities to obtain national economic, commercial, social or cultural benefits
- Provide opportunities for internationally competitive research projects to be conducted in collaboration with organisations outside the higher education sector, targeting those who have demonstrated a clear commitment to high-quality research
- Encourage growth of a national pool of world-class researchers to meet the needs of the broader Australian innovation system
- Build the scale and focus of research in the national Science and Research Priorities

The ARC Linkage Projects scheme has led to many successful collaborations. Examples include:

ENERGY-HARVESTING GLASS
A research team, led by Professor Kamal Alameh at Australia's Edith Cowan University, has developed a breakthrough technology – a clear glass that harvests energy directly from the sun while letting most of the visible light through. The glass is embedded with nanoparticles and micro-structured elements that help absorb and re-distribute the energy to solar cells embedded around the edges of the glass panel.

SEWEX
Researchers at The University of Queensland, Australia, led by Professor Zhiguo Yuan, have been working to improve the function of sewers. They have developed a tool called 'SeweX', which uses sophisticated mathematical modelling to pinpoint corrosion and odour hotspots in sewer infrastructure, determine the service life of sewers and optimise migration strategies.

RETROSPECT
Professor Dennis Del Favero from The University of New South Wales, Australia led the production of 'Retrospect: War, Family, Afghanistan' – an interactive cinema work that explores the relationship between the experiences of Afghanistan veterans and their families. The research project used cutting-edge visual technology to communicate the experience of war using modern day forms of digital communication.

SUPER SENSOR
Professor Ingrid Zukerman and her collaborators from Monash University, Australia, are combining computational models with a range of sensors to assist seniors and caregivers. They have developed a prototype 'Super Sensor' – a non-intrusive monitoring device that houses an array of sensors, such as passive infrared motion, light, temperature and vibration sensors – to monitor the wellbeing of the user.

**Finally, where do you see the focus of ARC moving in the future?**

ARC will continue to focus on its purpose: to grow knowledge and innovation for the benefit of the Australian community through funding the highest quality research, assessing the quality, engagement and impact of research and providing advice on research matters. We will maintain our strong commitment to funding research across all disciplines and across the full spectrum, from fundamental to applied research.