



Australian Government

Department of Industry,
Innovation and Science

Science, Research and Innovation Budget Tables Snapshot

2017-18



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Acting Minister's foreword

Senator the Hon Michaelia Cash



Science, research and innovation are key drivers of economic growth and prosperity for our nation. They are instrumental in creating jobs, boosting the productivity and competitiveness of our businesses and industries, and improving the quality of life for all Australians.

I am pleased to report that the Australian Government is investing \$10.3 billion in research and experimental development (R&D) in 2017–18. This is the highest ever Budget Estimate of total Australian Government investment in R&D, and it represents an increase of 2.3 per cent—or \$227 million—on the 2016–17 Budget Estimate.

This investment is being provided through 16 government portfolios and forms part of the Government's overall support for science, research and innovation.

A key element of the Government's investment is the R&D Tax Incentive which boosts the quantity of R&D undertaken by industry and accounts for over 30 per cent—or \$3.1 billion—of the total in 2017–18.

Other signature elements of our R&D investment include almost \$2 billion in funding for CSIRO and other government research agencies and activities, more than \$1.9 billion in research block grants to universities, \$1.6 billion in funding delivered through the Australian Research Council (ARC) and National Health and Medical Research Council (NHMRC), and \$161 million for the Cooperative Research Centres (CRC) program to support industry-research partnerships.

The Australian Government is further investing over \$470 million in innovation activities beyond those involving R&D. This investment is taking place through the Entrepreneurs' Programme, the Industry Growth Centres, tax incentives and other support for investors in innovative firms and high growth potential startups, and through a range of other mechanisms.

Acting Minister's foreword

Continued

Supporting science, research and innovation is a long-term endeavour and the Australian Government is committed to providing funding certainty for our world-leading researchers. The Government has made a number of significant longer-term commitments to supporting the national science, research and innovation system, including \$2.3 billion over ten years to support research infrastructure through the *National Innovation and Science Agenda*, and the establishment of the *Medical Research Future Fund* which, when fully capitalised, is expected to disburse around \$1 billion annually.

The Australian Government has also commissioned a number of independent, expert reviews to inform our investments in science, research and innovation in the years and decades ahead. For example, in 2016–17 the Government released Innovation and Science Australia's *Performance Review of the Australian Innovation, Science and Research System*, an Expert Working Group's 2016 *National Research Infrastructure Roadmap* and the Australian Medical Research Advisory Board's *Australian Medical Research and Innovation Strategy and Priorities*.

The Australian Government also released a *National Science Statement*, and Innovation and Science Australia is finalising a *2030 Strategic Plan for the Australian innovation, science and research system*.

Collectively, these initiatives demonstrate the Government's commitment to providing a stable foundation for Australian science, research and innovation, ensuring the best possible return for the Australian public and ultimately driving prosperity for the whole nation.

13 October 2017

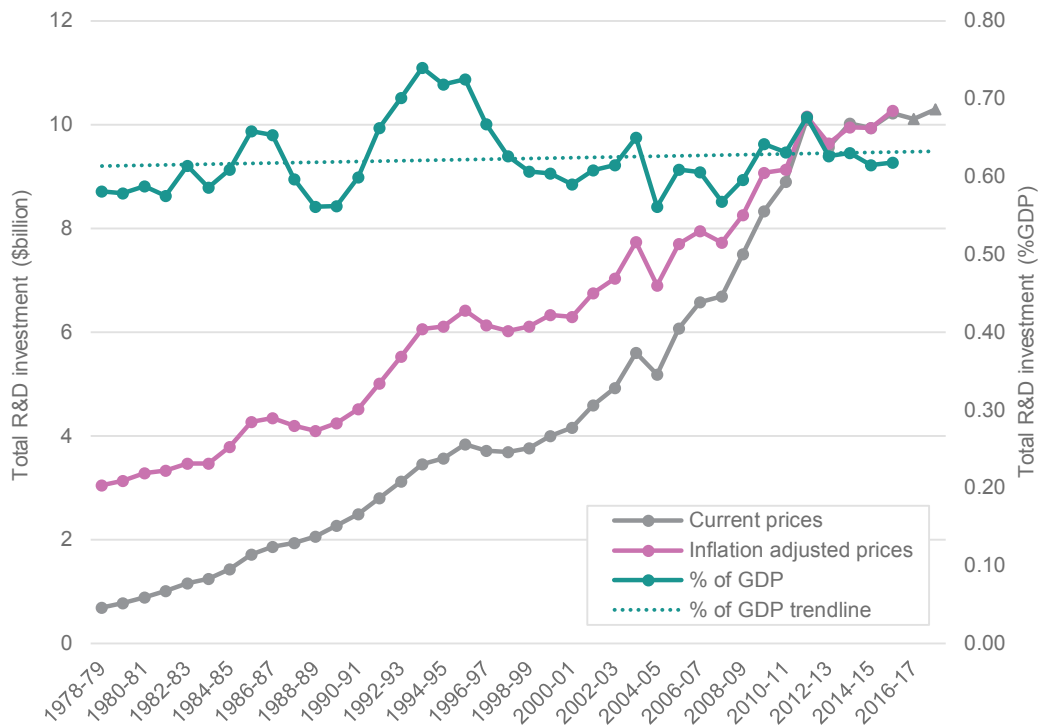
Senator the Hon Michaelia Cash

Minister for Employment

Minister for Women

Acting Minister for Industry, Innovation and Science

Australian Government investment in R&D: recent changes and long term trends



In 2017-18, the Australian Government is investing \$10.3 billion in research and experimental development (R&D).

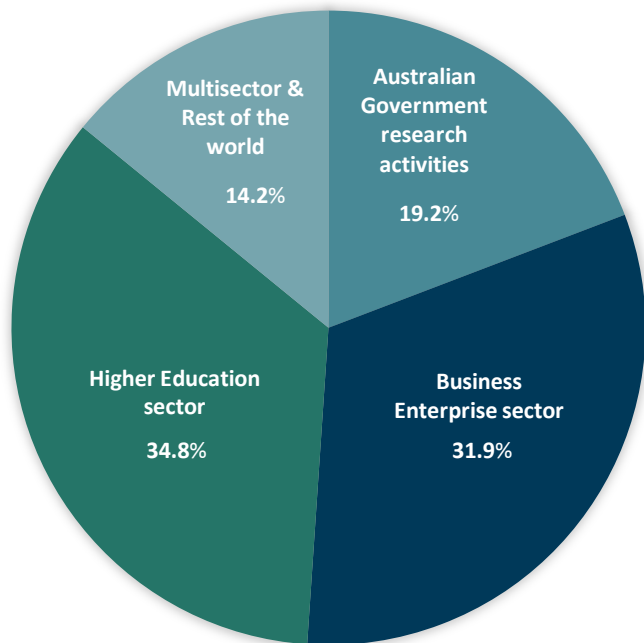
- This is a 2.3 per cent increase on the 2016-17 Budget Estimate.

Over the period since 1978-79:

- Inflation adjusted total Australian Government investment in R&D has trended upwards at a rate of about \$200 million per year.
- Total Australian Government investment in R&D as a percentage of Gross Domestic Product (GDP) has fluctuated around an average value of 0.62.

Note: The 2016-17 and 2017-18 current price values are based on estimates and are subject to revision.

Australian Government investment in R&D by sector



In 2017-18, total Australian Government investment in R&D is allocated across the following sectors:

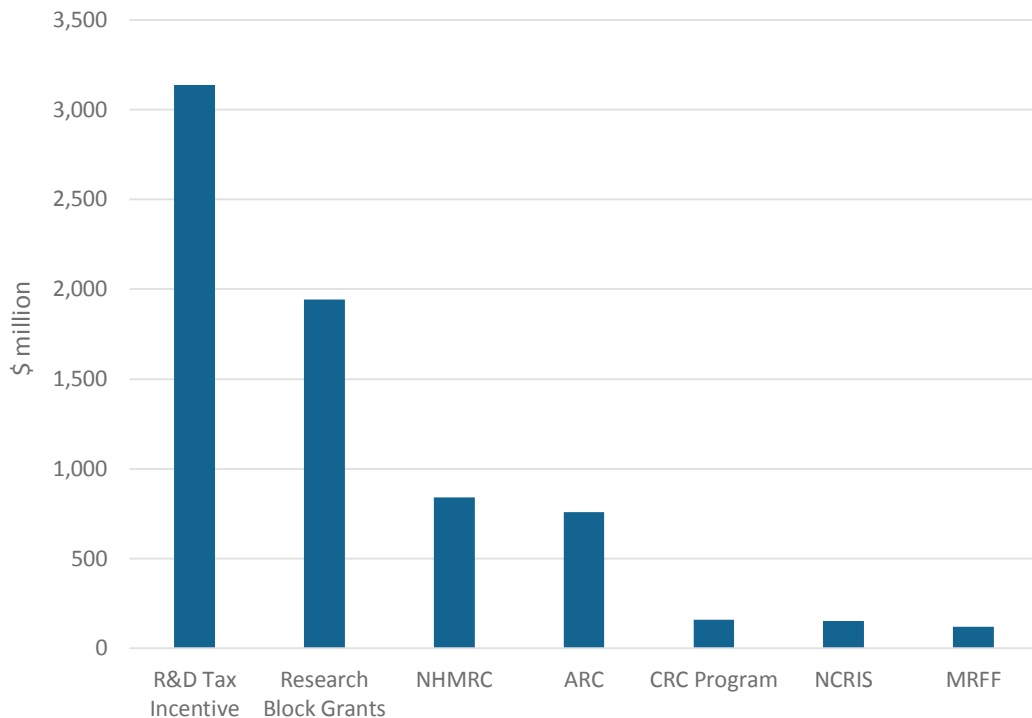
- Higher Education – \$3.6 billion, 34.8%
- Business Enterprise – \$3.3 billion, 31.9%
- Australian Government research activities – \$2.0 billion, 19.2%
- Multisector and Rest of the World – \$1.5 billion, 14.2%

Australian Government investment in R&D by sub-sector

Summary of Australian Government investment in R&D by sector and sub-sector, 2008-09 to 2017-18 (\$m actual cost in year incurred)

Portfolio / Activity	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	Estimated Actual 2016-17	Budget Estimate 2017-18	Share of 2017-18 total investment
Investment in intramural R&D											
Australian Government research activities											
CSIRO	675.8	714.8	730.3	724.9	733.8	778.2	745.3	750.2	787.3	793.5	7.7%
Defence Science & Technology (DST) Group	379.5	407.6	421.7	450.9	434.1	425.7	439.8	503.5	447.5	473.0	4.6%
Australian Government (Other R&D)	563.3	598.0	601.2	596.3	670.5	670.6	700.0	618.8	685.4	709.1	6.9%
<i>Sub-total (Intramural)</i>	<i>1,618.6</i>	<i>1,720.4</i>	<i>1,753.2</i>	<i>1,772.2</i>	<i>1,838.3</i>	<i>1,874.5</i>	<i>1,885.1</i>	<i>1,872.5</i>	<i>1,920.2</i>	<i>1,975.6</i>	<i>19.2%</i>
Investment in extramural R&D											
Business Enterprise sector											
Industry R&D Tax Measures	1,749.0	1,765.0	1,895.0	2,949.0	2,658.0	2,841.0	2,835.0	3,260.0	3,109.0	3,138.0	30.5%
Business Innovation and Other R&D	426.2	466.5	406.3	405.0	303.4	285.7	222.4	167.1	151.8	141.2	1.4%
<i>Sub-total</i>	<i>2,175.2</i>	<i>2,231.5</i>	<i>2,301.3</i>	<i>3,354.0</i>	<i>2,961.4</i>	<i>3,126.7</i>	<i>3,057.4</i>	<i>3,427.1</i>	<i>3,260.8</i>	<i>3,279.2</i>	<i>31.9%</i>
Higher Education sector											
Australian Research Council	583.8	647.6	703.5	797.9	873.2	883.3	852.9	815.3	744.4	758.1	7.4%
NHMRC (University)	0.0	0.0	0.0	0.0	0.0	640.3	677.8	615.0	627.9	626.9	6.1%
Performance Based Block Funding	1,408.4	1,514.0	1,661.4	1,774.6	1,807.5	1,874.5	1,947.3	2,039.6	1,992.2	2,162.1	21.0%
Higher Education R&D	10.9	197.7	233.9	178.9	96.6	91.7	45.7	45.0	40.0	35.8	0.3%
<i>Sub-total</i>	<i>2,003.1</i>	<i>2,359.2</i>	<i>2,598.8</i>	<i>2,751.4</i>	<i>2,777.3</i>	<i>3,489.8</i>	<i>3,523.7</i>	<i>3,514.8</i>	<i>3,404.5</i>	<i>3,582.9</i>	<i>34.8%</i>
Multisector											
National Health & Medical Research Council (NHMRC)	699.3	707.1	754.2	811.8	763.0	0.0	0.0	0.0	0.0	0.0	0.0%
NHMRC (Government, MRI, Hospital, Other)	0.0	0.0	0.0	0.0	0.0	223.1	226.7	210.5	212.6	214.5	2.1%
Other Health	116.5	91.8	157.5	266.5	103.6	99.7	62.1	173.2	295.0	195.6	1.9%
Cooperative Research Centres	182.3	178.9	172.6	165.5	155.6	147.1	149.9	141.0	149.5	160.8	1.6%
Rural	245.7	228.5	218.4	270.3	259.3	323.5	324.6	322.4	345.9	346.0	3.4%
Energy and the Environment	185.7	324.7	258.9	214.4	226.3	464.1	459.3	260.8	312.5	342.5	3.3%
Other R&D	271.3	481.5	683.2	484.2	479.6	271.6	248.1	301.3	206.4	186.5	1.8%
<i>Sub-total</i>	<i>1,700.7</i>	<i>2,012.4</i>	<i>2,244.8</i>	<i>2,212.5</i>	<i>1,987.4</i>	<i>1,529.1</i>	<i>1,470.6</i>	<i>1,409.1</i>	<i>1,522.0</i>	<i>1,445.9</i>	<i>14.1%</i>
Rest of the World											
	0.5	2.7	0.5	1.9	4.2	1.0	1.1	1.5	0.0	5.6	0.1%
<i>Sub-total (Extramural)</i>	<i>5,879.5</i>	<i>6,605.8</i>	<i>7,145.3</i>	<i>8,319.9</i>	<i>7,730.2</i>	<i>8,146.7</i>	<i>8,052.7</i>	<i>8,352.6</i>	<i>8,187.2</i>	<i>8,313.5</i>	<i>80.8%</i>
Total	7,498.1	8,326.2	8,898.5	10,092.0	9,568.6	10,021.1	9,937.8	10,225.1	10,107.4	10,289.2	100.0%

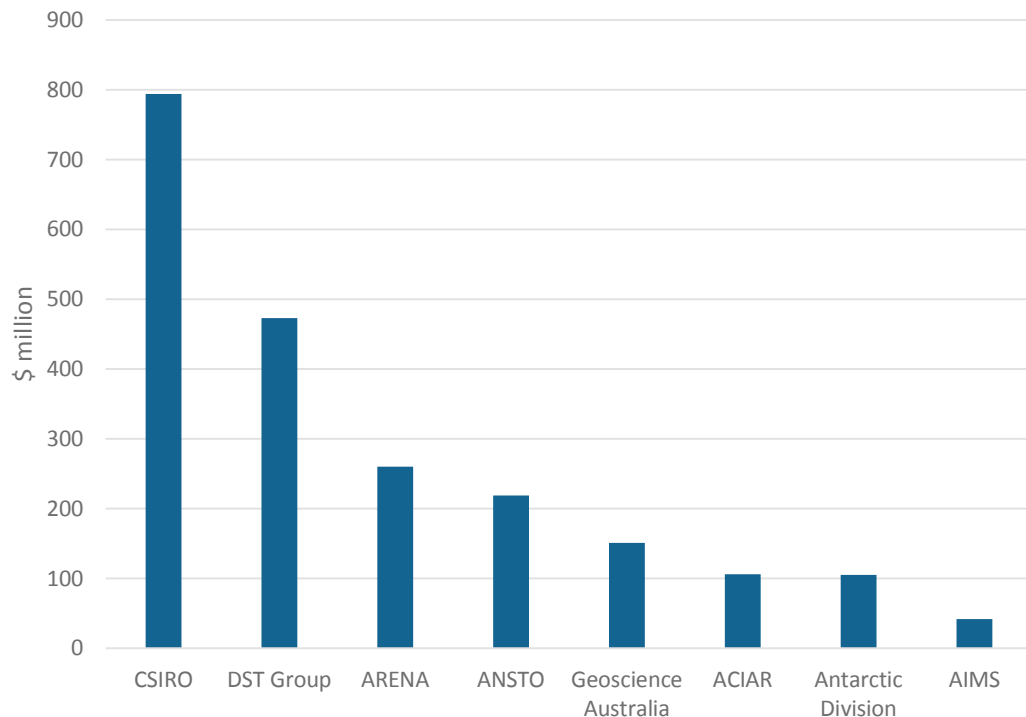
Australian Government investment in R&D through major research programs



In 2017-18, the Australian Government is investing in R&D through a number of major programs, including:

- R&D Tax Incentive – \$3.138 billion
- Research block grants to universities – \$1.943 billion
- National Health and Medical Research Council (NHMRC) – \$841 million
- Australian Research Council (ARC) – \$758 million
- Cooperative Research Centres (CRC) program – \$161 million
- National Collaborative Research Infrastructure Strategy (NCRIS) – \$153 million
- Medical Research Future Fund – \$122 million.

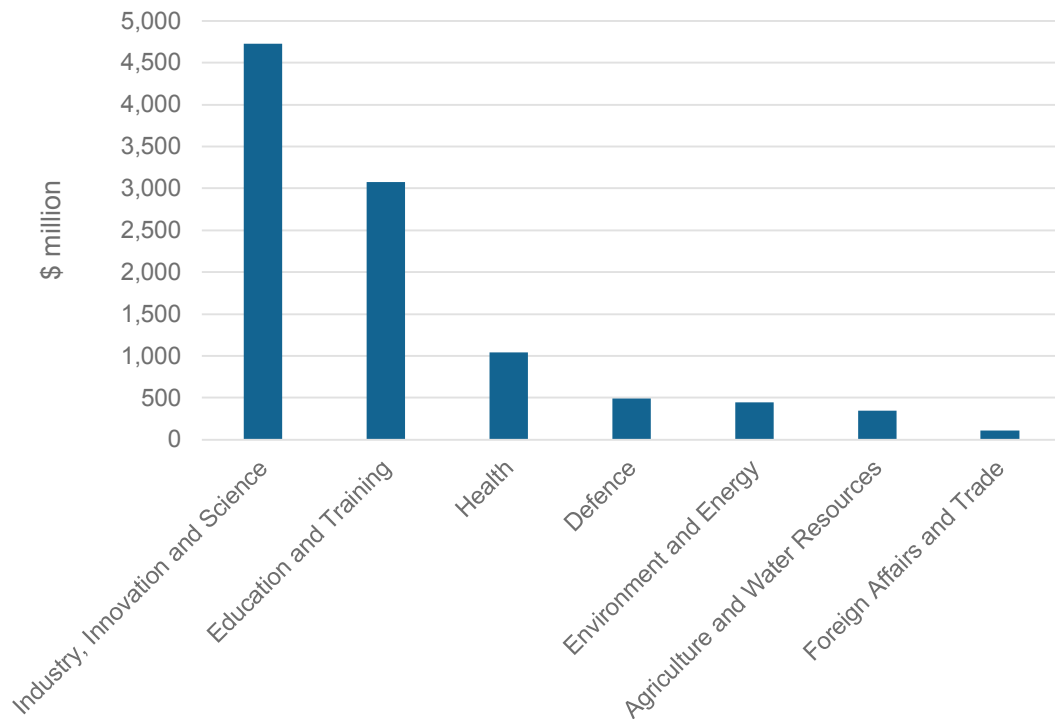
Australian Government investment in R&D through major research agencies



The Australian Government invests in R&D through its own research agencies. These include:

- CSIRO – \$794 million
- Defence Science and Technology (DST) Group – \$473 million
- Australian Renewable Energy Agency (ARENA) – \$260 million
- Australian Nuclear Science and Technology Organisation (ANSTO) – \$219 million
- Geoscience Australia – \$151 million
- Australian Centre for International Agricultural Research (ACIAR) – \$106 million
- Australian Antarctic Division – \$106 million
- Australian Institute of Marine Science (AIMS) – \$42 million.

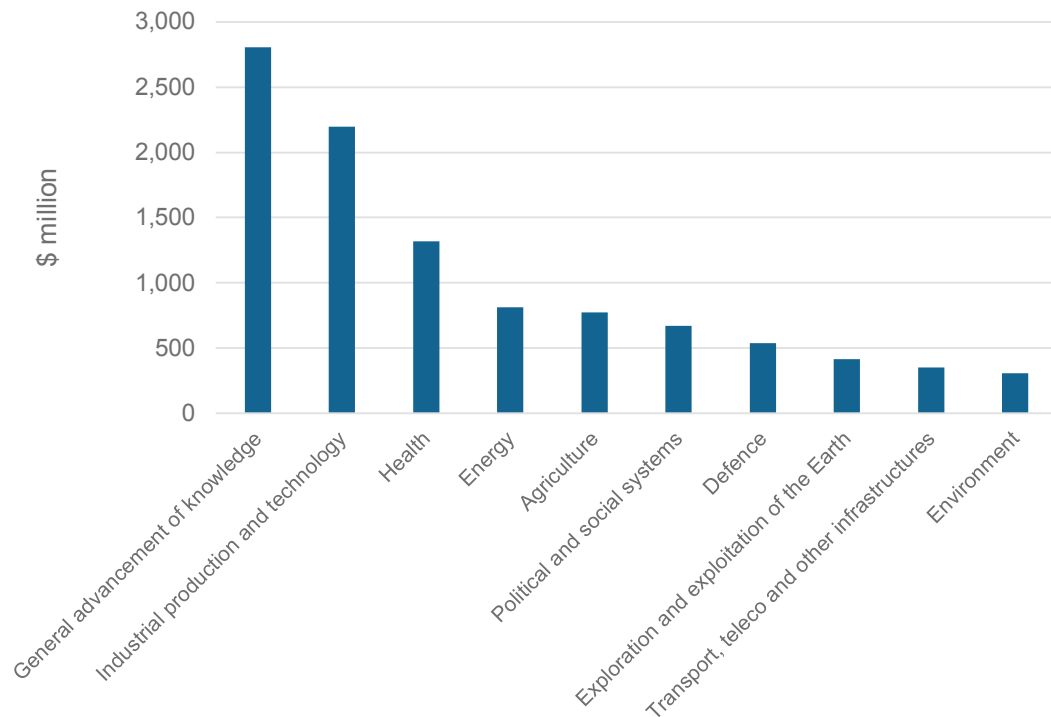
Australian Government investment in R&D by portfolio



In 2017-18, Australian Government investment in R&D is predominantly taking place through the following portfolios:

- Industry, Innovation and Science – \$4.729 billion
- Education and Training – \$3.079 billion
- Health – \$1.045 billion
- Defence – \$489 million
- Environment and Energy – \$443 million
- Agriculture and Water Resources – \$348 million
- Foreign Affairs and Trade – \$106 million.

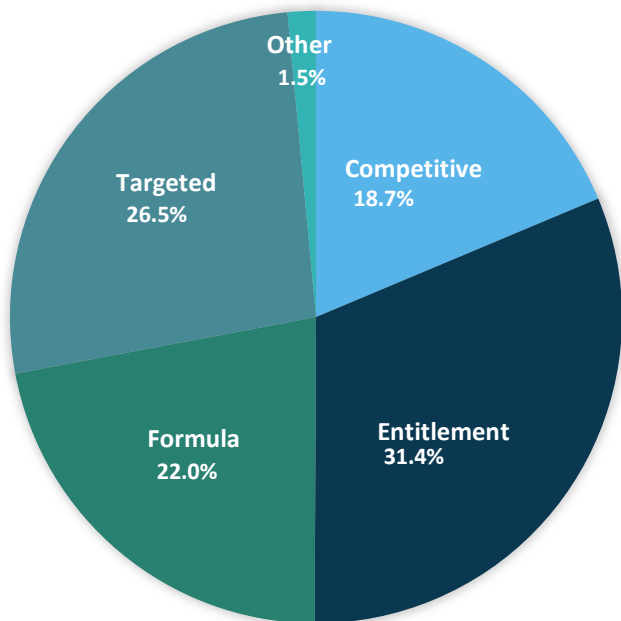
Australian Government investment in R&D by socio-economic objective



In 2017-18, the Australian Government is investing in R&D to support the following socio-economic objectives:

- General Advancement of Knowledge – \$2.804 billion
- Industrial Production and Technology – \$2.198 billion
- Health – \$1.320 billion
- Energy – \$812 million
- Agriculture – \$771 million
- Political and social systems – \$673 million
- Defence – \$541 million
- Exploration and exploitation of the Earth – \$415 million
- Transport and other infrastructures – \$350 million
- Environment – \$310 million.

Australian Government investment in R&D by method of funding allocation



In 2017-18, the Australian Government is investing in R&D using four main allocation mechanisms:

- Competitive (e.g. ARC and NHMRC grants) – 18.7%
- Targeted (e.g. mission-oriented government research agencies such as CSIRO, DST Group and ARENA) – 26.5%
- Entitlement (e.g. R&D Tax Incentive) – 31.4%
- Formula (e.g. research block grants to universities) – 22.0%.

More information

The Science, Research and Innovation (SRI) Budget Tables and SRI Budget Tables Snapshot, are available from:

<https://www.industry.gov.au/innovation/reportsandstudies/Pages/SRIBudget.aspx>

Machine-readable CSV files containing data from the tables are available from:

<https://data.gov.au/dataset/science-research-and-innovation-sri-budget-tables>

We welcome feedback on these products, and may be contacted at:

Commercialisation Policy Branch

Science and Commercialisation Policy Division

Department of Industry, Innovation and Science

Industry House Level 6, 10 Binara Street, Canberra

GPO Box 2013, Canberra ACT 2601

Telephone +61 2 6276 1520

Email sribudgettables@industry.gov.au