



# AUSTRALIAN KEY INNOVATION INDICATORS

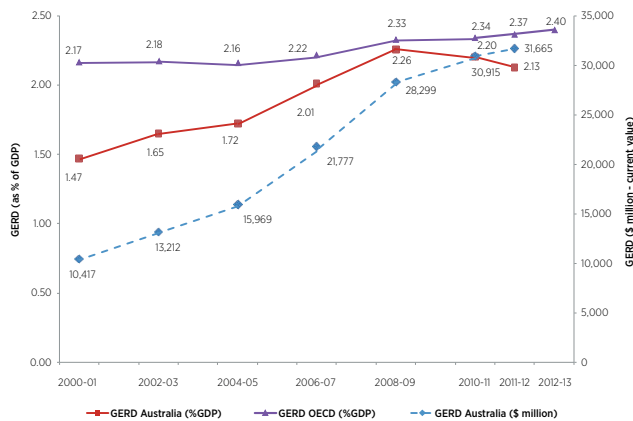
Last Updated 10 September 2014

## Research and Development (R&D) Indicators <sup>(1)</sup>

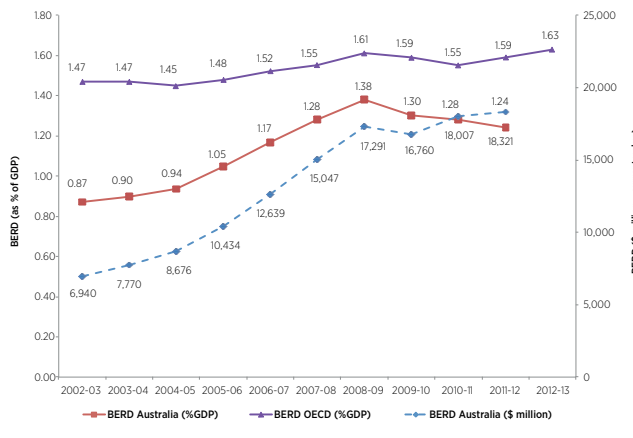
R&D Indicator	Latest available Australian data			Latest available comparative international data	
	Reference year	Expenditure (\$m)	Proportion of GDP (%)	Reference year	Proportion of GDP (%), OECD Total
GERD	2011-12	31,665	2.13	2012	2.40
BERD	2011-12	18,321	1.24	2012	1.63
HERD	2012	9,610	0.63	2012	0.43
GOVERD	2012-13	3,725	0.24	2012	0.28
Private non-profit	2012-13	961	0.06	n/a*	n/a

Note: n/a = data not available; R&D – Research and development; GERD – Gross expenditure on research and development; BERD – Business expenditure on research and development; HERD – Higher education expenditure on research and development; GOVERD – Government expenditure on research and development.

## Gross Expenditure on Research and Development (GERD), as a proportion of GDP, Australia and OECD, 2001-02 to 2012-13 <sup>(2)</sup>



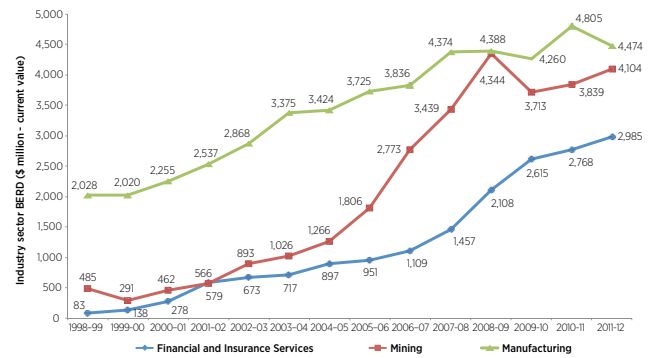
## Business Expenditure on Research and Development (BERD), as a proportion of GDP, Australia and OECD, 2002-03 to 2012-13a <sup>(2)</sup>



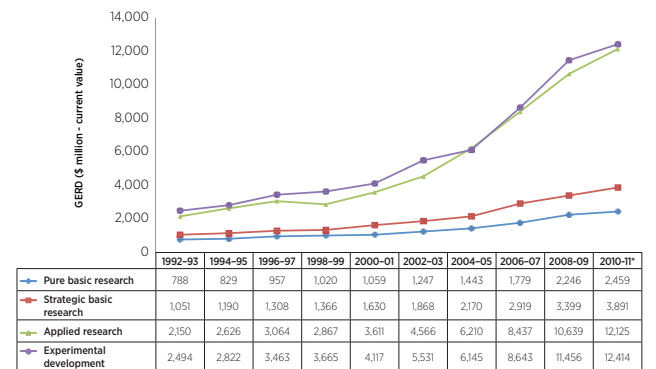
Sources: (1) Australian data come from ABS cat. no. 8104.0 (2011-12); 8109.0 (2012-13) and OECD data from MSTI 2014/1; (2) Australian data come from ABS cat. no. 8104.0 (various issues) and OECD data from MSTI 2014/1 (3) ABS cat. no. 8104.0 (various issues); (4) ABS cat. no. 8112.0 (various issues) and other R&D publications; (5) ABS cat. no. 8104.0 (2011-12)

<http://industry.gov.au/Innovation/ReportsandStudies/Pages/AustralianInnovationDataCard.aspx>

## Business Expenditure on Research and Development (BERD): Manufacturing, Mining and Finance & Insurance Services <sup>(3)</sup>



## Gross Expenditure on Research and Development (GERD) by type of activity, 1992-93 to 2010-11 <sup>(4)</sup>



\* Estimates based on data sourced from ABS publications

## Business Expenditure on Research and Development (BERD) by industry sector, 2011-12 <sup>(5)</sup>

Industry Sector	2011-12 (\$'000)	% of BERD
Manufacturing	4,473,890	24.4
Mining	4,104,123	22.4
Financial and Insurance Services	2,985,215	16.3
Professional, Scientific and Technical Services	2,831,737	15.5
Construction	819,529	4.5
Wholesale Trade	715,822	3.9
Information Media and Telecommunications	701,202	3.8
Electricity, Gas, Water and Waste Services	378,133	2.1
Administrative and Support Services	308,668	1.7
Transport, Postal and Warehousing	292,850	1.6
Agriculture, Forestry and Fishing	189,747	1.0
Retail Trade	146,045	0.8
Health Care and Social Assistance	94,424	0.5
Rental, Hiring and Real Estate Services	92,086	0.5
Arts and Recreation Services	72,431	0.4
Other Services	63,215	0.3
Accommodation and Food Services	21,451	0.1
Public Administration and Safety	15,807	0.1
Education and Training	14,948	0.1
<b>Total</b>	<b>18,321,322</b>	<b>100.0</b>

## Innovation Indicators <sup>(6)</sup>

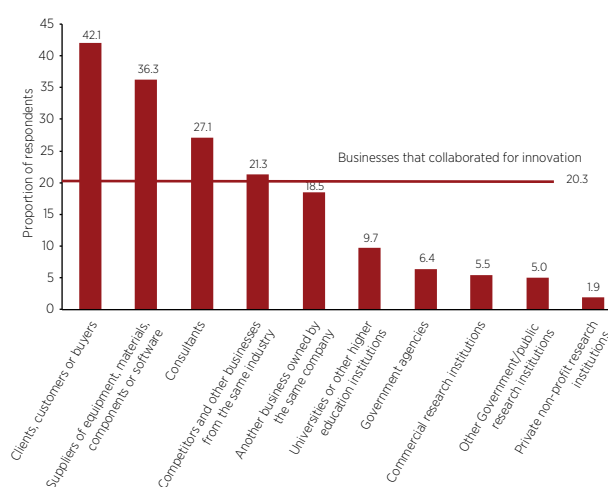
Type of businesses	Percentage of total businesses for the reference period			
	2012-13	2011-12	% change between 2012-13 and 2011-12	% point difference between 2012-13 and 2011-12
<b>Total proportion of innovation-active businesses*</b>	<b>42.2</b>	<b>46.6</b>	<b>-9.4</b>	<b>-4.4</b>
Proportion of innovating businesses*	36.6	41.3	-11.4	-4.7
Goods or services	20.0	20.4	-2.0	-0.4
Operational processes	16.9	19.1	-11.5	-2.2
Organisational/managerial processes	20.2	23.0	-12.2	-2.8
Marketing methods	18.8	19.9	-5.5	-1.1
<b>Top 3 industry sectors in 2012-13 - Proportion of innovating businesses:</b>				
Wholesale Trade	48.1	51.5	-6.6	-3.4
Retail Trade	46.7	52.0	-10.2	-5.3
Manufacturing	43.9	48.0	-8.5	-4.1

\* An **innovation-active business** is one that has undertaken any innovative activity during the period under review, including those with ongoing and abandoned activities. An **innovating business** is one that has introduced at least one type of innovation during the period under review.

## Percentage of innovating businesses by industry sector and the corresponding gross value added (GVA), 2011-12 <sup>(7)</sup>

Industry Sector	Businesses which introduced innovation (Innovating businesses) (%)	GVA at current prices (\$million)	Industry share of GVA (%) at current prices
Information Media and Telecommunications	53.0	41,776	3.0
Retail Trade	52.0	65,595	4.8
Wholesale Trade	51.5	63,548	4.6
Arts and Recreation Services	49.1	11,864	0.9
Manufacturing	48.8	105,111	7.6
Rental, Hiring and Real Estate Services	47.6	32,159	2.3
Other Services	46.7	25,124	1.8
Health Care and Social Assistance	45.1	87,114	6.3
Professional, Scientific and Technical Services	45.0	97,539	7.1
Accommodation and Food Services	41.6	34,498	2.5
Financial and Insurance Services	41.3	144,850	10.5
Electricity, Gas, Water and Waste Services	38.9	35,573	2.6
Administrative and Support Services	37.9	35,313	2.6
Mining	37.0	142,231	10.3
Construction	31.0	106,496	7.7
Agriculture, Forestry and Fishing	28.0	32,545	2.4
Transport, Postal and Warehousing	26.9	69,751	5.1
<b>All industries - GVA, Current prices</b>		<b>1,377,036</b>	

## Collaboration by innovation-active businesses for the purpose of innovation (by type of organisation collaborated with) in 2012-13 <sup>(8)</sup>



## Australian Government Support for Science, Research and Innovation through the budget and other appropriations <sup>(9)</sup>

	2005-06 (\$m)	2006-07 (\$m)	2007-08 (\$m)	2008-09 (\$m)	2009-10 (\$m)	2010-11 (\$m)	2011-12 (\$m)	2012-13 (\$m)	Estimated Actual 2013-14 (\$m)	Budget Estimate 2014-15 (\$m)
<b>Total Australian Government Support</b>	<b>6083</b>	<b>6613</b>	<b>6718</b>	<b>7513</b>	<b>8384</b>	<b>8970</b>	<b>9805</b>	<b>9578</b>	<b>9577</b>	<b>9192</b>
<b>Proportion of Total Australian Government Expenditure (%)</b>	<b>2.51</b>	<b>2.55</b>	<b>2.40</b>	<b>2.31</b>	<b>2.46</b>	<b>2.52</b>	<b>2.59</b>	<b>2.50</b>	<b>2.31</b>	<b>2.22</b>
<b>% of GDP</b>	<b>0.61</b>	<b>0.61</b>	<b>0.57</b>	<b>0.60</b>	<b>0.65</b>	<b>0.64</b>	<b>0.66</b>	<b>0.63</b>	<b>0.61</b>	<b>0.56</b>
<b>Intramural Expenditure *</b>	<b>1417</b>	<b>1508</b>	<b>1639</b>	<b>1617</b>	<b>1697</b>	<b>1746</b>	<b>1770</b>	<b>1832</b>	<b>1861</b>	<b>1843</b>
CSIRO	594	610	663	676	715	730	725	734	778	745
DSTO	351	408	406	380	408	422	451	434	421	408
ANSTO	159	142	186	175	155	180	165	229	211	253
Other Government Research Agencies	313	348	384	387	420	414	429	435	451	437
<b>Extramural Expenditure *</b>	<b>4666</b>	<b>5105</b>	<b>5079</b>	<b>5896</b>	<b>6686</b>	<b>7224</b>	<b>8035</b>	<b>7746</b>	<b>7716</b>	<b>7348</b>
Industry R&D Tax Incentives	897	1005	1236	1749	1775	1915	2649	2568	2726	2430
Competitive Grants										
ARC	544	570	572	586	653	709	809	879	887	876
NHMRC	425	472	561	699	707	754	812	763	859	930
Higher Education Support Act (HESA) Block Grants										
Research Training Scheme	563	574	585	592	604	615	632	656	672	677
Research Infrastructure Block Grants	200	204	206	210	215	219	224	245	264	239
Other HESA block grants	460	456	433	439	524	654	740	742	790	840
CRCs	208	189	212	182	179	173	165	156	144	150
Other extramural expenditure	1370	1635	1275	1439	2030	2186	2003	1737	1375	1207

**Note:** CSIRO = Commonwealth Scientific and Industrial Research Organisation; DSTO = Defence Science and Technology Organisation; ANSTO = Australian Nuclear Science and Technology Organisation; ARC = Australian Research Council; NHMRC = National Health and Medical Research Council; CRC = Cooperative Research Centres; HESA = Higher Education Support Act 2003.

\* **Intramural Expenditure:** Intramural expenditures are all expenditures for R&D performed within a statistical unit or sector of the economy during a specific period, whatever the source of funds, Frascati Manual (OECD 2002); **Extramural Expenditure:** Extramural expenditures are sums that a unit, organisation or sector reports having paid or committed to pay to another unit, organisation or sector for the performance of R&D during a specific period.