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Table 1: Outcome indicators

Indicators	Australian Trend Data (i)																OECD+ Comparisons (ii)						
	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Australia's score (iii)	OECD+ Average (iv)	OECD+ Median (v)	OECD+ top 5 average (vi)	Gap from the top 5 OECD+ performers (%) (vii)	Ranking against OECD+ countries (viii)	Year of OECD+ comparison	
GDP per capita relative to the USA (USA = 100), index <sup>1</sup>	78	77	80	81	82	82	88	87	88	84	89	85	82	–	–	82	70	66	120	32	12th of 36	2015	
GDP per hour worked (USA = 100), index <sup>1</sup>	81	83	79	80	80	79	81	79	80	79	85	83	–	–	–	83	73	75	113	27	13rd of 35	2014	
Real Gross Domestic Product (GDP) (chain volume measures), billions A\$ <sup>2 18</sup>	885	1,068	1,265	1,313	1,361	1,386	1,414	1,447	1,500	1,539	1,579	1,617	1,662	–	–	–	–	–	–	–	–	–	–
Real Gross Domestic Product (GDP) growth from previous year, % <sup>2</sup>	3.9	1.9	3.0	3.8	3.7	1.8	2.0	2.4	3.6	2.6	2.6	2.4	2.8	–	–	–	–	–	–	–	–	–	–
Gross national income, US\$ per capita <sup>3</sup>	21,516	27,319	33,931	35,739	37,557	38,132	39,471	40,522	42,371	41,996	45,575	45,324	–	–	–	45,324	37,198	36,037	57,095	21	9th of 33	2014	
Multifactor productivity annual growth/change, % <sup>4</sup>	1.212	0.633	-0.065	0.193	-0.144	-0.463	0.529	-0.874	0.809	1.514	0.693	0.583	–	–	–	0.583	0.147	0.395	0.779	25	3rd of 15	2014	
Index of Economic Freedom <sup>5</sup>	74	77	79	80	81	82	83	83	83	83	83	82	81	80	81	81	72	74	83	2	4th of 38	2017	
Resilience of the economy, score <sup>6</sup>	0.0	0.0	7.6	7.4	6.4	6.8	5.8	7.7	7.3	6.5	6.8	5.3	6.2	–	–	6.2	5.3	5.5	6.7	8	8th of 38	2016	
Economic Complexity Index <sup>7</sup>	0.00	-0.17	-0.24	-0.22	-0.30	-0.48	-0.57	-0.46	-0.55	-0.57	-0.52	-0.63	–	–	–	-0.63	1.09	1.10	1.91	133	35th of 35	2014	
Hannah-Kay index of industrial specialisation <sup>8</sup>	–	–	–	–	–	–	–	0.55	–	–	–	–	–	–	–	0.55	0.56	0.57	0.67	17	20th of 31	2010	
Global Competitiveness Index, score ranges from 1-7 (best) <sup>9</sup>	–	–	–	5.2	5.2	5.2	5.2	5.1	5.1	5.1	5.1	5.1	5.1	5.2	–	5.2	5.0	5.2	5.7	9	19th of 38	2016	
Global Innovation Index <sup>10</sup>	–	–	–	–	–	–	–	–	49.9	51.9	53.1	55.0	55.2	53.1	–	53.1	50.7	52.5	62.6	15	18th of 38	2016	
Non-energy material productivity, GDP per unit of domestic material consumption (DMC), US\$/kg <sup>11 19</sup>	0.97	1.02	1.15	1.23	1.20	1.11	1.05	1.30	1.32	–	–	–	–	–	–	1.32	2.61	2.38	4.09	68	13rd of 15	2011	
Renewable electricity, % total electricity generation <sup>11</sup>	9.6	8.4	8.8	9.3	8.6	8.1	7.5	8.6	10.4	10.6	13.3	14.9	13.7	–	–	13.7	35.3	29.3	84.0	84	28th of 34	2015	
Water productivity, total (constant 2010 US\$ GDP per cubic meter of total freshwater withdrawal) <sup>12 20 21</sup>	33.5	41.3	–	–	56.5	–	–	–	36.1	75.7	38.4	64.4	–	–	–	64.4	129.5	65.3	530.8	88	19th of 36	2014	
UNDP Human Development Index <sup>13 14 22 23</sup>	0.87	0.90	0.91	–	–	0.92	–	0.93	0.93	0.93	0.93	0.94	–	–	–	0.93	0.88	0.89	0.93	no gap	2nd of 37	2014	
Environmental Performance Index <sup>15 21</sup>	–	80.5	81.2	81.2	81.5	81.7	81.9	82.2	82.4	82.4	–	–	–	87.2	–	87.2	83.8	85.8	90.0	3	12th of 38	2016	
Social Progress Index <sup>16</sup>	–	–	–	–	–	–	–	–	–	–	–	86.1	86.4	89.1	–	89.1	83.2	84.8	89.4	0	4th of 35	2016	
Gini coefficient, score ranges from 0 (perfect equality) to 1 (perfect inequality) <sup>17 24 25 26</sup>	–	–	–	–	–	–	–	–	–	0.326	–	0.337	–	–	–	0.326	0.311	0.306	0.252	30	21st of 34	2012	

– = data not available

**Table notes:** (i) Data are presented in calendar year format. Where the data are in financial years, it is expressed in terms of the year where the financial year begins e.g. 2010–11 is shown as 2010. (ii) OECD+ includes all countries in the OECD, as well as China, Taiwan and Singapore (where data is available). (iii) The 'Australia's score' field presents the Australian values used in the OECD+ comparisons. (iv) This is the arithmetic (simple) average of the OECD+ country scores. (v) This is the median of the OECD+ country scores (vi) This is the arithmetic (simple) average of the top five OECD+ countries in a ranked list. (vii) This represents Australia's distance from the frontier as defined by the average of the top five ranked OECD+ countries. It is calculated as 100\*(Top five average - Australia's score)/ Top 5 average. Where the solution is a negative value or zero, 'no gap' is shown in the cell. (viii) OECD+ rankings are performed on those OECD+ countries for which data are available. Individual data availability may vary between indicators.

**Sources (1 - 17):** [1] OECD (2016) GDP per capita and productivity levels, OECD Productivity Statistics (database), June 2016, URL: <http://stats.oecd.org/>; [2] ABS (2016) Australian System of National Accounts, cat. no. 5204.0, 2015-16, Table 2. Expenditure on Gross Domestic Product (GDP), URL: <http://www.abs.gov.au/>; [3] OECD (2016) National Income, 2016, Gross national income, DOI: 10.1787/2fe06aca-en; [4] OECD (2016) Productivity, 2016, Growth in GDP per capita, productivity and ULC, URL: <http://stats.oecd.org/>; [5] The Heritage Foundation (2014-2016) Index of Economic Freedom, 2014 - 2016, URL: <http://www.heritage.org/>; [6] IMD (2014-2016) World Competitiveness Online, 2014 - 2016, URL: <https://www.worldcompetitiveness.com/>; [7] Center for International Development at Harvard University (2016) Atlas of Economic Complexity, 2016, URL: <http://atlas.cid.harvard.edu/>; [8] OECD (2014) Structural Analysis (STAN), 2014, URL: <http://stats.oecd.org/>; [9] World Economic Forum (2014-2016) Global Competitiveness Index, 2014-15 - 2016-17, URL: <http://www.weforum.org/>; [10] Cornell University, INSEAD, WIPO (2011-2016) Global Innovation Index, GII 2011 - 2016, URL: <http://www.globalinnovationindex.org/>; [11] OECD (2016) Green growth indicators, 2016-2, URL: <http://www.oecd.org/>; [12] World Bank (2014-2016) World Development Indicators, 2014 - 2016, URL: <http://data.worldbank.org/>; [13] United Nations Development Programme (2014) Human Development Index, 2014, Table 2: Human Development Index trends, 1980-2013, URL: <http://hdr.undp.org/>; [14] United Nations Development Programme (2015) Human Development Index, 2015, URL: <http://hdr.undp.org/>; [15] Yale University and Columbia University (2014-2016) Environmental Performance Index, 2014 - 2016, URL: <http://epi.yale.edu/>; [16] Social Progress Imperative (2015-2016) Social Progress Index, 2014 - 2017, URL: <http://www.socialprogressimperative.org/>; [17] OECD (2015-2016) Income Distribution and Poverty, 2014 - 2015-16

**Indicator notes (18 - 26):** [18] Series ID A2420912W; series type original; data type derived; collection month is June; [19] Reference year is 2010; [20] 1997 data used in place of 1995 data.; [21] 2002 data used in place of 2000 data.; [22] 1990 data used in place of 1995 data.; [23] See Technical note 1 (<http://hdr.undp.org/en>) for details on how the HDI is calculated; [24] A lower score is better, gap from the top 5 performers represents absolute gap; [25] Gini (disposable income, post taxes and transfers); [26] New income definition since 2012

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Table 2: Indicators of Australia's innovation and entrepreneurship activity

Indicators	Australian Trend Data (i)																	OECD+ Comparisons (ii)						
	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Australia's score (iii)	OECD+ Average (iv)	OECD+ Median (v)	OECD+ top 5 average (vi)	Gap from the top 5 OECD+ performers (%) (vii)	Ranking against OECD+ countries (viii)	Year of OECD+ comparison		
Business expenditure on R&D (BERD), % of GDP <sup>1</sup>	0.82	0.71	1.05	1.16	1.28	1.37	1.29	1.28	1.23	-	1.19	-	-	-	-	1.19	1.27	1.06	2.79	58	16th of 37	2013		
Percentage of Business expenditure on R&D (BERD) financed by government, % <sup>1</sup>	2.4	3.8	4.0	3.9	2.8	2.0	2.0	1.7	1.9	-	2.1	-	-	-	-	2.1	7.8	6.8	18.0	88	31st of 36	2013		
Percentage of innovation-active firms, % <sup>2 3 26</sup>	-	-	-	37.1	44.9	39.8	43.8	39.1	46.6	42.2	48.3	45.0	-	-	-	-	-	-	-	-	-	-	-	
Percentage of innovation-active SME firms, % <sup>4 27</sup>	-	-	36.7	-	-	39.7	43.7	38.9	46.6	42.0	48.1	-	-	-	-	62.2	48.1	50.1	67.4	8	5th of 31	2011		
Percentage of innovation-active large firms, % <sup>2 3 4 5 6 28</sup>	-	-	-	66.2	70.8	66.7	74.3	65.9	76.0	74.3	79.5	73.3	-	-	-	77.9	75.0	78.0	89.8	13	18th of 31	2011		
Proportion of businesses introducing goods or services innovation, % <sup>3 7 8 29 30</sup>	-	-	19.3	18.4	21.9	18.2	19.8	17.3	20.4	20.0	24.1	19.3	-	-	-	-	-	-	-	-	-	-	-	
Proportion of businesses introducing operational/ process innovation, % <sup>3 7 9 29 30</sup>	-	-	20.8	16.9	17.6	16.3	16.9	16.4	19.1	16.9	17.9	15.6	-	-	-	-	-	-	-	-	-	-	-	
Proportion of businesses introducing organisational/managerial process innovation, % <sup>2 7 10 29 30</sup>	-	-	20.7	16.4	19.0	19.4	20.7	18.9	23.0	20.2	21.7	17.4	-	-	-	-	-	-	-	-	-	-	-	
Proportion of businesses introducing marketing innovation, % <sup>7 11 29 30</sup>	-	-	14.3	12.7	14.6	17.2	16.7	16.8	19.9	18.8	20.3	16.5	-	-	-	-	-	-	-	-	-	-	-	
Proportion of innovation-active businesses innovating to reduce environmental impacts, % <sup>12 13</sup>	-	-	-	12.1	-	11.4	-	12.9	-	11.7	-	7.4	-	-	-	-	-	-	-	-	-	-	-	
Share of high and medium technology manufacturing as a percentage of GDP <sup>14 15 16</sup>	-	-	-	-	-	-	-	1.85	1.86	1.70	1.63	1.57	-	-	-	-	-	-	-	-	-	-	-	
Rate of high-growth enterprises in the construction sector, measured by employment growth, % <sup>5 17 18 31</sup>	-	-	-	-	4.60	4.20	3.60	3.40	3.70	3.60	3.10	-	-	-	-	3.60	4.07	3.45	7.94	55	9th of 20	2012		
Rate of high-growth enterprises in the industry sector, measured by employment growth, % <sup>5 17 18 31</sup>	-	-	-	-	1.40	1.10	0.90	0.90	1.00	1.00	0.80	-	-	-	-	1.00	3.89	3.60	6.94	86	20th of 20	2012		
Rate of high-growth enterprises in the services sector, measured by employment growth, % <sup>5 17 18 31</sup>	-	-	-	-	1.2	1.1	0.9	0.8	1.0	1.0	0.9	-	-	-	-	1.0	4.55	3.2	8.46	88	19th of 19	2012		
Rate of high-growth enterprises in the construction sector, measured by turnover growth, % <sup>5 18 32</sup>	-	-	-	-	9.30	7.80	6.30	5.70	6.00	6.00	5.60	-	-	-	-	6.00	10.48	6.80	19.00	68	12th of 15	2012		
Rate of high-growth enterprises in the industry sector, measured by turnover growth, % <sup>5 18 32</sup>	-	-	-	-	2.90	2.50	1.70	1.60	1.60	1.60	1.50	-	-	-	-	1.60	10.56	8.50	18.44	91	15th of 15	2012		
Rate of high-growth enterprises in the services sector, measured by turnover growth, % <sup>5 17 18 32</sup>	-	-	-	-	2.70	2.30	1.70	1.60	1.70	1.70	1.50	-	-	-	-	1.70	8.80	7.28	15.44	89	15th of 15	2012		
Employer Enterprise Birth Rate, % <sup>19</sup>	-	-	-	-	12.1	11.3	12.3	11.8	11.6	9.3	11.5	11.2	11.8	-	-	11.2	10.4	10.2	14.3	22	5th of 22	2014		
Total early-stage entrepreneurship activity (TEA), % <sup>20 33</sup>	-	14.7	10.5	11.9	-	-	7.8	10.5	-	-	13.1	12.8	14.6	-	-	14.6	10.1	9.3	17.6	17	5th of 30	2016		
Employer Enterprise Death Rate, % <sup>18 24</sup>	-	-	-	-	9.3	9.6	8.8	8.3	9.4	8.0	8.1	8.2	-	-	-	8.1	10.4	9.3	6.4	26	6th of 18	2014		
Churn Rate, % <sup>18 19</sup>	-	-	-	-	21.4	20.9	21.1	20.2	19.9	18.7	19.5	19.2	20.0	-	-	19.2	20.6	19.2	27.1	29	9th of 18	2014		
1-year survival rate (employer enterprises), % <sup>18 19 21</sup>	-	-	85.0	85.4	84.7	84.6	86.9	86.5	86.0	87.3	87.6	-	-	-	-	87.6	79.5	79.9	91.8	5	5th of 19	2014		
Patents granted by IP Australia, for Australian residents <sup>22 23 35</sup>	-	-	-	924	1,086	925	926	1,178	1,262	1,311	1,110	1,199	1,199	1,614	-	-	-	-	-	-	-	-	-	
Innovation Patents by AU residents <sup>22 26</sup>	-	-	926	918	1,034	1,028	1,109	1,127	1,204	1,205	1,131	1,021	-	-	-	-	-	-	-	-	-	-	-	
Industrial designs certified by IP Australia, for Australian residents <sup>22 27</sup>	-	-	115	151	238	342	274	327	265	318	217	569	-	-	-	-	-	-	-	-	-	-	-	
Triadic patent families per million population <sup>1</sup>	13.1	26.9	23.6	17.5	16.4	14.7	15.9	13.8	14.1	14.5	14.2	14.0	-	-	-	14.0	29.3	16.7	94.0	85	21st of 38	2014		
Patent applications filed by AU residents under PCT per million population <sup>22 28</sup>	-	-	-	96	97	90	79	79	77	75	69	73	-	-	-	-	-	-	-	-	-	-	-	
Share of world triadic patent families <sup>1</sup>	0.7	0.9	0.8	0.6	0.7	0.6	0.7	0.6	0.6	0.6	0.6	0.6	-	-	-	0.6	2.6	0.5	15.2	96	17th of 38	2014		
Patent applications filed under PCT per million population <sup>1</sup>	46	91	103	99	96	85	84	78	79	76	78	78	-	-	-	78	112	89	293	73	21st of 38	2014		
Development of environment-related technologies, % all technologies <sup>24</sup>	11.08	8.03	9.69	9.87	10.38	11.75	12.53	13.53	12.14	10.82	9.16	-	-	-	-	9.16	9.99	9.59	15.45	41	22nd of 37	2013		
Development of environment-related technologies, inventions per capita <sup>24</sup>	6.32	8.70	10.84	10.97	11.09	11.57	11.57	11.44	10.55	9.48	7.68	-	-	-	-	7.68	15.42	8.69	47.21	84	22nd of 37	2013		
Diffusion of environment-related technologies, % all technologies <sup>24</sup>	6.9	5.8	7.0	7.5	8.9	10.4	11.1	12.1	10.8	9.3	-	-	-	-	-	9.3	11.9	10.9	20.8	55	27th of 36	2012		
Environmentally related government R&D budget, % of total government R&D <sup>24</sup>	1.2	3.0	1.8	2.5	3.1	3.0	4.2	3.9	3.5	3.9	3.8	4.6	4.3	-	-	4.3	2.6	2.1	5.0	14	2nd of 19	2015		
Renewable energy public research, development and demonstration (RD&D) budget, % of total energy public RD&D <sup>24 33</sup>	4.6	9.9	12.4	14.6	16.0	13.8	19.3	20.2	33.6	33.4	53.9	25.5	-	-	-	25.5	29.3	25.3	50.6	50	8th of 16	2014		
Energy public research, development and demonstration (RD&D) budget, % of GDP <sup>24 33</sup>	0.02	0.02	0.02	0.03	0.03	0.03	0.04	0.03	0.04	0.05	0.06	0.02	-	-	-	0.02	0.04	0.03	0.07	78	12th of 16	2014		
Madrid system trademark registrations by country of origin <sup>25</sup>	-	-	-	-	-	-	-	-	-	-	16.3	-	-	-	-	16.3	27.0	21.3	72.2	77	19th of 33	2013		
Patent Cooperation Treaty resident applications, per billion PPP\$ GDP <sup>25</sup>	-	-	-	-	-	-	-	-	27.8	80.5	31.5	31.4	19.2	21.5	-	21.5	38.9	26.9	100.0	78	22nd of 37	2016		
Industrial design registrations (AU resident) per million population <sup>22 39</sup>	121	98	136	168	110	113	119	111	111	107	125	111	-	-	-	-	-	-	-	-	-	-	-	
Trade Mark applications from Australian residents <sup>22 23</sup>	19,036	27,175	38,193	40,246	39,754	38,211	38,308	39,554	40,066	41,106	39,682	41,686	47,081	-	-	-	-	-	-	-	-	-	-	
Trademark registrations (AU resident) per million population <sup>22 39</sup>	429	504	1,091	1,120	1,221	1,245	1,123	1,077	1,062	1,063	1,069	994	-	-	-	-	-	-	-	-	-	-	-	
National office resident trademark registrations, per bn PPP\$ GDP <sup>25</sup>	-	-	-	-	-	-	-	-	-	-	26	-	-	-	-	26	27	26	56	54	19th of 37	2013		
Plant breeder's rights applications from Australian residents <sup>23</sup>	-	-	-	171	174	192	186	176	179	138	134	137	156	-	-	-	-	-	-	-	-	-	-	

-- data not available

**Table notes:** (i) Data are presented in calendar year format. Where the data are in financial years, it is expressed in terms of the year where the financial year begins e.g. 2010-11 is shown as 2010. (ii) OECD+ includes all countries in the OECD, as well as China, Taiwan and Singapore (where data is available). (iii) The 'Australia's score' field presents the Australian values used in the OECD+ comparisons. (iv) This is the arithmetic (simple) average of the OECD+ country scores. (v) This is the median of the OECD+ country scores (vi) This is the arithmetic (simple) average of the top five OECD+ countries in a ranked list. (vii) This represents Australia's distance from the frontier as defined by the average of the top five ranked OECD+ countries. It is calculated as 100\*(Top five average - Australia's score)/Top 5 average. Where the solution is a negative value or zero, 'no gap' is shown in the cell. (viii) OECD+ rankings are performed on those OECD+ countries for which data are available. Individual data availability may vary between indicators.

**Sources (1 - 26):** [1] OECD (2016) Main Science and Technology Indicators, 2016-1, URL: <http://stats.oecd.org/>; [2] ABS (2008-2014) Summary of IT Use and Innovation in Australian Business, cat. no. 8166.0, 2006-07 - 2012-13, Summary of Innovation in Australian Business, URL: <http://www.abs.gov.au/>; [3] ABS (2014-2016) Summary of IT Use and Innovation in Australian Business, cat. no. 8166.0, 2012-13 - 2014-15, Summary of Innovation in Australian Business, by employment size, by industry, URL: <http://www.abs.gov.au/>; [4] OECD (2015) Science, Technology and Industry Scoreboard, 2015, DOI: 10.1787/20725345; [5] ABS (2015-2016) Special request, 2015-1 - 2016-1; [6] OECD (2013) Science, Technology and Industry Scoreboard, 2013, DOI: 10.1787/sti\_scoreboard-2013-en; [7] ABS (2008-2013) Selected Characteristics of Australian Business, cat. no. 8167.0, 2005-06 - 2011-12, Business innovation, URL: <http://www.abs.gov.au/>; [8] ABS (2016) Innovation in Australian Business, cat. no. 8158.0, 2014-15, Good and services innovation, URL: <http://www.abs.gov.au/>; [9] ABS (2016) Innovation in Australian Business, cat. no. 8158.0, 2014-15, Operational Processes by Innovation, URL: <http://www.abs.gov.au/>; [10] ABS (2016) Innovation in Australian Business, cat. no. 8158.0, 2014-15, Organisational/managerial processes, URL: <http://www.abs.gov.au/>; [11] ABS (2016) Innovation in Australian Business, cat. no. 8158.0, 2014-15, Marketing methods innovation., URL: <http://www.abs.gov.au/>; [12] ABS (2008-2014) Innovation in Australian Business, cat. no. 8158.0, 2008 - 2012-13, Drivers of Innovation, URL: <http://www.abs.gov.au/>; [13] ABS (2016) Innovation in Australian Business, cat. no. 8158.0, 2014-15, Drivers of Innovation., URL: <http://www.abs.gov.au/>; [14] ABS (2014) Australian Industry, cat. no. 8155.0, 2012-13, Manufacturing Industry by ANZSIC Class; [15] ABS (2015-2016) Australian Industry, cat. no. 8155.0, 2013-14 - 2014-15, Manufacturing industry; [16] ABS (2016) Australian National Accounts: National Income, Expenditure and Product, cat. no. 5206.0, June 2016, Income from GDP and Changes in Inventories, Annual; [17] OECD (2015) Entrepreneurship at a Glance, 2015, URL: <http://www.oecd.org/>; OECD (2017) Structural and Demographic Business Statistics (SDBS) Database, 2017, Business Demography Indicators ISIC 4, URL: <http://dx.doi.org/>; [18] ABS (2007-2015) Counts of Australian Businesses, including Entries and Exits, cat. no. 8165.0, 2007 - 2014, Businesses by Industry Division, URL: <http://www.abs.gov.au/>; [19] ABS (2016) Counts of Australian Businesses, including Entries and Exits, cat. no. 8165.0, 2015, URL: <http://www.abs.gov.au/>; [20] OECD (2016) Structural and Demographic Business Statistics (SDBS) Database, 2016, Business Demography Indicators ISIC 4, URL: <http://dx.doi.org/>; [21] Global Entrepreneurship Research Association (GERA) (2015) Global Entrepreneurship Monitor (GEM), 2014, URL: <http://www.gemconsortium.org/>; [22] Global Entrepreneurship Research Association (GERA) (2016) Global Entrepreneurship Monitor (GEM), 2015-16, Adult Population Survey, URL: <http://www.gemconsortium.org/>; [23] Australian Government (2014-2015) Special data request from IP Australia, 2014 - 2015, Ref: O:\Innovation Analysis Branch\Innovation Research\Data\Indicators\IP\_SR; [24] Australian Government (2016) Australian Intellectual Property Report, 2016, URL: <https://www.ipaustralia.gov.au/>; [25] OECD (2016) Green growth indicators, 2016-2, URL: <http://www.oecd.org/>; [26] Cornell University, INSEAD, WIPO (2011-2016) Global Innovation Index, GII 2011 - 2016, URL: <http://www.globalinnovationindex.org>

**Indicator notes (27 - 40):** [27] 0+ employees; [28] 0-199 employees for Australia-only data points; 10-249 employees OECD Comparison; [29] 200+ employees for Australia-only data points; 250+ employees OECD Comparison; [30] Businesses may be counted in more than one category; [31] Proportions are of all businesses in each output category; [32] High growth enterprises rate, measured by employment growth, by main sector, average annualised changes (over 3 year period), for total business economy (OECD definition basis), firms with 10 or more employees in first time period; [33] High growth enterprises rate, measured by sales growth, by main sector, greater than 20% average annualised increase (over 3 year period), for total business economy (OECD definition basis), firms with 10 or more employees in first time period; [34] 2001 data used in place of 2000 data.; [35] A lower score is better, gap from the top 5 performers represents absolute gap; [36] IP Australia's databases country codes are not complete for mainframe applications. As a result, the number of Australian grants may be understated prior to 2008; [37] The innovation patent regime was established in November 2000, and as such the first full year of data available is 2001; [38] Design certificate was introduced with the 2003 act, so no observations before then; [39] PCT data is not currently available prior to 2006; Population has been sourced from ABS Cat. No. 3101.0; [40] Population has been sourced from ABS Cat. No. 3101.0

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Table 3: Main indicators of Australia's international engagement

Indicators	Australian Trend Data (i)															OECD+ Comparisons (ii)						
	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Australia's score (iii)	OECD+ Average (iv)	OECD+ Median (v)	OECD+ top 5 average (vi)	Gap from the top 5 OECD+ performers (%) (vii)	Ranking against OECD+ countries (viii)	Year
DHL Global Connectedness Index <sup>1</sup>	–	–	57	58	60	63	64	65	64	64	63	63	62	–	–	62	67	66	85	27	28th of 38	
Trade, % of GDP <sup>2</sup>	38	41	39	41	41	42	45	40	41	43	41	42	41	–	–	41	108	85	258	84	33rd of 35	
Exports of goods, % of GDP <sup>3,4</sup>	13.5	15.6	13.9	15.1	14.3	17.6	15.3	16.4	17.5	16.2	16.5	16.6	15.3	–	–	15.3	37.1	28.6	84.1	82	32nd of 36	
Exports of services, % of GDP <sup>4,5</sup>	4.3	4.9	4.0	4.0	4.1	4.1	3.9	3.6	3.4	3.4	3.5	3.7	4.0	–	–	4.0	17.5	12.1	57.9	93	33rd of 35	
Exports in raw commodities, % of GDP <sup>4,6</sup>	–	–	–	–	–	5.9	8.1	9.6	10.8	9.6	10.0	10.0	8.2	–	–	8.2	3.1	2.0	9.7	15	3rd of 34	
Net Foreign Direct Investment Inflows, % of GDP <sup>7,8,9</sup>	1.3	1.7	-3.7	3.2	4.2	4.4	3.1	2.8	3.8	3.7	3.7	2.7	1.8	–	–	1.8	4.2	1.0	22.9	92	13rd of 35	
FDI and technology transfer, score ranges from 1-7 (best) <sup>10</sup>	–	–	–	5.2	5.4	5.5	5.4	5.2	5.1	5.0	5.2	5.1	4.8	4.8	–	4.8	4.9	5.0	5.7	17	25th of 38	
Business impact of rules on FDI, score ranges from 1-7 (best) <sup>10</sup>	–	–	–	5.4	5.3	5.4	5.1	4.9	4.9	5.0	4.9	4.6	4.8	4.9	–	4.8	5.1	5.1	6.1	21	27th of 38	
Technology balance of payments - (receipts minus payments), % of GDP <sup>9,21</sup>	-0.049	-0.167	-0.092	-0.023	-0.133	-0.194	-0.182	-0.210	-0.245	-0.258	-0.304	-0.290	-0.271	–	–	-0.271	0.274	0.541	2.360	111	21st of 24	
Intellectual property balance of payments, million A\$ <sup>11,12</sup>	–	-1,319	-1,832	-2,001	-2,492	-2,656	-2,588	-2,659	-3,065	-3,213	-3,280	-3,476	-3,589	–	–	–	–	–	–	–	–	–
Percentage of Gross Expenditure on R&D (GERD) financed by abroad, % <sup>9,21,22</sup>	2.1	3.5	2.9	2.4	–	1.6	–	–	–	–	–	–	–	–	–	1.6	7.9	6.0	20.8	92	25th of 31	
Percentage of Business expenditure on R&D (BERD) financed by abroad, % <sup>9</sup>	3.0	4.7	1.6	1.9	1.2	1.0	1.0	0.9	1.2	–	1.6	–	–	–	–	1.6	11.8	9.3	34.3	95	29th of 36	
Proportion of patents with foreign co-inventors, % <sup>13</sup>	9.3	13.2	15.3	16.7	16.1	16.1	17.3	18.6	18.5	17.4	16.2	–	–	–	–	16.2	24.5	21.5	45.3	64	27th of 38	
R&D expenditure of foreign affiliates, % of R&D expenditure of the enterprise <sup>14,15,16,17</sup>	–	–	–	36.5	36.5	35.5	32.1	29.5	30.5	–	27.2	–	–	–	–	–	–	–	–	–	–	–
Net gains of skilled people through migration, '000s <sup>18,19,23</sup>	–	–	29.0	36.0	40.4	44.2	41.1	32.2	25.2	33.6	30.8	30.4	30.4	–	–	–	–	–	–	–	–	–
Short term education trips churn, '000s <sup>20,24</sup>	156	249	328	346	371	400	429	442	438	465	465	465	516	–	–	–	–	–	–	–	–	–
Short term convention and conferences trips churn, '000s <sup>20,24</sup>	205	292	357	378	394	353	355	393	415	444	450	450	485	–	–	–	–	–	–	–	–	–
Short term employment trip churn, '000s <sup>20,24</sup>	99	144	247	284	302	300	297	317	338	374	371	371	490	–	–	–	–	–	–	–	–	–
Short term business trips churn, '000s <sup>20,24</sup>	850	1,043	1,315	1,394	1,438	1,294	1,353	1,472	1,501	1,453	1,478	1,478	1,485	–	–	–	–	–	–	–	–	–

– = data not available

**Table notes:** (i) Data are presented in calendar year format. Where the data are in financial years, it is expressed in terms of the year where the financial year begins e.g. 2010–11 is shown as 2010. (ii) OECD+ includes all countries in the OECD, as well as China, Taiwan and Singapore (where data is available). (iii) The 'Australia's score' field presents the Australian values used in the OECD+ comparisons. (iv) This is the arithmetic (simple) average of the OECD+ country scores. (v) This is the median of the OECD+ country scores (vi) This is the arithmetic (simple) average of the top five OECD+ countries in a ranked list. (vii) This represents Australia's distance from the frontier as defined by the average of the top five ranked OECD+ countries. It is calculated as 100\*(Top five average - Australia's score)/ Top 5 average. Where the solution is a negative value or zero, 'no gap' is shown in the cell. (viii) OECD+ rankings are performed on those OECD+ countries for which data are available. Individual data availability may vary between indicators.

**Sources (1 - 20):** [1] DHL (2017) DHL Global Connectedness Index, 2016, URL: <http://www.dhl.com/>; [2] World Bank (2016) World Development Indicators, 2016, URL: <http://data.worldbank.org/>; [3] OECD (2016) International Trade and Balance of Payments, 2016, International Trade (MEI), URL: <http://stats.oecd.org/>; [4] OECD (2016) National Accounts, 2016, 1. Gross domestic product (GDP), URL: <http://stats.oecd.org/>; [5] OECD (2016) Balance of Payments (MEI), 2016, URL: <http://stats.oecd.org/>; [6] OECD (2016) International Trade by Commodity Statistics, 2016-1, Harmonised system 2007, URL: <http://www.oecd.org/>; [7] OECD (2014) Foreign Direct Investment Statistics, 2013, URL: <http://stats.oecd.org/>; [8] OECD (2016) Foreign Direct Investment Statistics, April 2016, FDI financial flows, main aggregates BMD4, URL: <http://stats.oecd.org/>; [9] OECD (2016) Main Science and Technology Indicators, 2016-1, URL: <http://stats.oecd.org/>; [10] World Economic Forum (2014-2016) Global Competitiveness Index, 2014-15 - 2016-17, URL: <http://www.weforum.org/>; [11] ABS (2014-2016) International Trade in Services by Country, by State and by Detailed Services Category, Calendar Year, cat. no. 5368.0.55.004, 2013 - 2015, International Trade in Services, Credits, Calendar Year by Country & Service, URL: <http://www.abs.gov.au/>; [12] ABS (2014-2016) International Trade in Services by Country, by State and by Detailed Services Category, Calendar Year, cat. no. 5368.0.55.004, 2013 - 2015, International Trade in Services, Debits, Calendar Year by Country & Service, URL: <http://www.abs.gov.au/>; [13] OECD (2015-2016) Indicators of international co-operation in patents, 2015 - 2016, URL: <http://stats.oecd.org/>; [14] ABS (2013) Research and Experimental Development, Businesses, Australia, cat. no. 8104.0, 2013, Business expenditure on R&D, summary statistics, URL: <http://www.abs.gov.au/>; [15] ABS (2013) Research and Experimental Development, Businesses, Australia, cat. no. 8104.0, 2013, Business resources devoted to R&D, by level of foreign ownership, URL: <http://www.abs.gov.au/>; [16] ABS (2015) Research and Experimental Development, Businesses, Australia, cat. no. 8104.0, 2013-14, Business expenditure on R&D, summary statistics, URL: <http://www.abs.gov.au/>; [17] ABS (2015) Research and Experimental Development, Businesses, Australia, cat. no. 8104.0, 2013-14, Business resources devoted to R&D, by level of foreign ownership - summary statistics, URL: <http://www.abs.gov.au/>; [18] Australian Government (2014) Special data request from Department of Immigration, 2014, Ref: O:\Innovation Analysis Branch\Innovation Research\Data\Indicators\DImmi\_SR; [19] Australian Government (2015) Special data request from Department of Immigration, 2015, Outlook for Net Overseas Migration, Ref: O:\Innovation Analysis Branch\Innovation Research\Data\Indicators\DImmi\_SR; [20] ABS (2010-2016) Overseas Arrivals and Departures, Australia, June 2010 - June 2016, Overseas Arrivals and Departures Tables, URL: <http://www.abs.gov.au/>

**Indicator notes (21 - 24):** [21] 1996 data used in place of 1995 data.; [22] 2004 data used in place of 2005 data.; [23] A new method of categorising visas was introduced in May 2014. The new method assigns visas previously categorised as 'Other' to more appropriate categories, resulting in more visas being included in the category "Skilled". As a result, the data has been historically revised, and is not comparable to the data presented in the 2013 Australian Innovation System Report; [24] Churn is calculated as Arrivals + Departures

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**Table 4: Indicators of Australia's business collaboration activity by innovation-active businesses**

Indicators	Australian Trend Data (i)															OECD+ Comparisons (ii)						
	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Australia's score (iii)	OECD+ Average (iv)	OECD+ Median (v)	OECD+ top 5 average (vi)	Gap from the top 5 OECD+ performers (%) (vii)	Ranking against OECD+ countries (viii)	Year
Percentage of innovation-active total businesses collaborating on innovation, % <sup>1 2 3 4 11 12</sup>	–	–	–	17.0	–	16.9	–	23.6	–	20.3	–	20.1	–	–	–	24.9	32.0	31.3	47.2	47	23rd of 30	
Percentage of innovation-active SMEs collaborating on innovation, % <sup>2 4 13</sup>	–	–	–	17.0	–	16.8	–	23.6	–	20.1	19.7	–	–	–	–	24.3	30.4	29.2	45.5	47	21st of 29	
Percentage of innovation-active large firms collaborating on innovation, % <sup>1 2 3 4 14</sup>	–	–	–	22.4	–	23.2	–	24.4	–	32.3	25.2	25.6	–	–	–	38.7	55.0	55.9	73.1	47	25th of 29	
Proportion of innovation-active businesses collaborating for any reason, % of respondents <sup>5 6 7</sup>	–	–	16.7	15.9	20.7	22.5	22.2	22.4	21.3	14.0	14.8	14.8	–	–	–	–	–	–	–	–	–	–
Proportion of non-innovation active businesses collaborating for any reason, % of respondents <sup>5 6 7</sup>	–	–	6.0	6.4	6.5	7.6	6.7	7.4	6.8	4.6	3.8	3.8	–	–	–	–	–	–	–	–	–	–
Percentage of innovation-active total businesses with international collaboration on innovation, % <sup>2 8 15</sup>	–	–	–	–	–	2.4	–	4.0	–	6.1	–	–	–	–	–	6.1	18.3	18.2	31.6	81	24th of 27	
Percentage of innovation-active total businesses collaborating with universities or other research institutions excluding commercial, % <sup>2 16</sup>	–	–	–	12.1	–	9.5	–	9.6	–	12.6	–	–	–	–	–	–	–	–	–	–	–	–
Percentage of innovation-active SMEs collaborating with universities or other research institutions excluding commercial, % <sup>2 9 13</sup>	–	–	–	12.1	–	9.5	–	9.6	–	12.6	–	–	–	–	–	2.1	14.2	14.6	22.6	91	27th of 27	
Percentage of innovation-active large businesses collaborating with universities or other research institutions excluding commercial, % <sup>2 9 14</sup>	–	–	–	12.7	–	15.8	–	13.7	–	10.7	–	–	–	–	–	3.0	36.0	36.8	55.3	95	27th of 27	
International collaboration in development of environment-related technologies, % collaboration in all technologies <sup>10</sup>	4.2	3.2	3.4	3.9	6.2	4.7	5.9	8.0	6.2	6.6	–	–	–	–	–	6.6	9.5	9.9	15.1	57	32nd of 37	

– = data not available

**Table notes:** (i) Data are presented in calendar year format. Where the data are in financial years, it is expressed in terms of the year where the financial year begins e.g. 2010–11 is shown as 2010. (ii) OECD+ includes all countries in the OECD, as well as China, Taiwan and Singapore (where data is available). (iii) The 'Australia's score' field presents the Australian values used in the OECD+ comparisons. (iv) This is the arithmetic (simple) average of the OECD+ country scores. (v) This is the median of the OECD+ country scores (vi) This is the arithmetic (simple) average of the top five OECD+ countries in a ranked list. (vii) This represents Australia's distance from the frontier as defined by the average of the top five ranked OECD+ countries. It is calculated as 100\*(Top five average - Australia's score)/ Top 5 average. Where the solution is a negative value or zero, 'no gap' is shown in the cell. (viii) OECD+ rankings are performed on those OECD+ countries for which data are available. Individual data availability may vary between indicators.

**Sources (1 - 9):** [1] ABS (2008-2012) Innovation in Australian Business, cat. no. 8158.0, 2006-07 - 2010-11, Innovation-active Businesses and Collaboration, URL: <http://www.abs.gov.au/>; [2] ABS (2012-2015) Special request, 12-Oct-2012 - 2015-2; [3] ABS (2016) Innovation in Australian Business, cat. no. 8158.0, 2014-15, Innovation-active Businesses and Collaboration, URL: <http://www.abs.gov.au/>; [4] OECD (2013) Science, Technology and Industry Scoreboard, 2013, DOI: 10.1787/sti\_scoreboard-2013-en; [5] ABS (2008) Selected Characteristics of Australian Business, cat. no. 8167.0, 2005-06, URL: <http://www.abs.gov.au/>; [6] ABS (2008-2013) Selected Characteristics of Australian Business, cat. no. 8167.0, 2006-07 - 2011-12, Collaborative arrangements by innovation status, employment size, and industry, URL: <http://www.abs.gov.au/>; [7] ABS (2014-2016) Selected Characteristics of Australian Business, cat. no. 8167.0, 2012-13 - 2014-15, Business Structure and Arrangements, URL: <http://www.abs.gov.au/>; [8] OECD (2015) Science, Technology and Industry Scoreboard, 2015, DOI: 10.1787/20725345; [9] OECD (2016) Green growth indicators, 2016-2, URL: <http://www.oecd.org/>

**Indicator notes (10 - 15):** [10] 0+ employees for Australia-only data points; 10+ employees for OECD Comparison; [11] OECD measures this as a percentage of product and/or process innovative firms; [12] 0-199 employees for Australia-only data points; 10-249 employees for OECD Comparison; [13] 200+ employees for Australia-only data points; 250+ employees for OECD Comparison; [14] 10+ employees; [15] 0+ employees

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Table 5: Indicators of framework conditions in Australia

Indicators	Australian Trend Data (i)																OECD+ Comparisons (ii)						
	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Australia's score (iii)	OECD+ Average (iv)	OECD+ Median (v)	OECD+ top 5 average (vi)	Gap from the top 5 OECD+ performers (%) (vii)	Ranking against OECD+ countries (viii)	Year of OECD+ comparison	
Operating surplus, % of GDP <sup>1</sup>	22.7	22.7	24.0	24.7	23.9	26.1	24.8	25.5	25.3	24.0	24.3	23.2	22.5	–	–	–	–	–	–	–	–	–	–
Index of Industrial Production <sup>2</sup>	68.2	77.2	81.6	85.2	87.7	87.3	90.1	91.3	94.5	96.7	100.0	102.7	105.8	–	–	–	–	–	–	–	–	–	–
NAB Index of capacity utilisation <sup>3, 23, 28, 27</sup>	79.9	79.3	82.7	83.2	82.9	79.3	81.9	81.4	80.7	79.6	79.4	81.8	81.2	–	–	–	–	–	–	–	–	–	–
Industry Gross Value Added (chain volume measures), billions A\$ <sup>4, 28</sup>	810	981	1,163	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Unemployment rate (ABS), % <sup>5</sup>	8.5	6.9	4.8	4.3	4.2	5.8	5.2	5.0	5.2	5.7	6.0	6.1	5.7	–	–	–	–	–	–	–	–	–	–
Inflation Rate (CPI), % <sup>6, 7</sup>	3.1	6.1	4.0	2.1	4.4	1.4	3.1	3.5	1.2	2.4	3.0	1.5	1.0	–	–	–	–	–	–	–	–	–	–
Trade Weighted Index (TWI) <sup>8, 29</sup>	58.1	49.7	62.2	68.9	73.4	64.7	67.3	77.8	76.5	71.4	72.0	63.8	62.5	–	–	–	–	–	–	–	–	–	–
NAB Business Confidence Survey, score <sup>9, 25, 27, 30</sup>	14.2	18.9	7.7	13.5	-8.8	5.1	7.1	2.5	-2.3	-0.6	6.2	7.0	5.4	–	–	–	–	–	–	–	–	–	–
Barrier to innovation: Lack of access to additional funds, % of respondents <sup>10, 11, 12, 31</sup>	–	–	–	15.9	16.0	19.5	18.4	21.1	19.9	20.3	18.4	18.4	18.4	–	–	–	–	–	–	–	–	–	–
—Government regulations or compliance, % of respondents <sup>10, 11, 12, 31</sup>	–	–	–	10.3	10.6	11.9	14.5	13.0	13.9	12.7	11.9	10.7	10.7	–	–	–	–	–	–	–	–	–	–
—Adherence to standards, % of respondents <sup>10, 11, 12, 31</sup>	–	–	–	–	–	4.1	5.2	4.1	4.3	4.5	3.8	3.8	3.8	–	–	–	–	–	–	–	–	–	–
—Cost of development or introduction/implementation, % of respondents <sup>10, 11, 12, 31</sup>	–	–	11.1	10.9	10.8	12.5	13.1	15.0	14.4	14.6	14.1	12.7	–	–	–	–	–	–	–	–	–	–	–
—Lack of access to knowledge or technology, % of respondents <sup>10, 11, 12, 31</sup>	–	–	3.4	3.4	3.2	3.0	3.8	3.6	4.2	3.3	3.3	3.6	–	–	–	–	–	–	–	–	–	–	–
—Lack of skilled persons in any location, % of respondents <sup>10, 11, 12, 31</sup>	–	–	22.8	25.7	23.0	19.4	20.4	20.0	17.8	17.2	16.4	16.4	–	–	–	–	–	–	–	–	–	–	–
—Lack of skilled persons within the business, % of respondents <sup>10, 11, 12, 31</sup>	–	–	14.3	16.1	14.8	13.2	13.6	13.1	11.8	12.4	11.7	10.9	–	–	–	–	–	–	–	–	–	–	–
—Lack of skilled persons within the labour market, % of respondents <sup>10, 11, 12, 31</sup>	–	–	17.3	18.7	16.6	12.8	13.2	12.5	11.4	9.9	9.4	9.3	–	–	–	–	–	–	–	–	–	–	–
—Uncertain demand for new goods or services, % of respondents <sup>10, 11, 12, 31</sup>	–	–	9.4	8.8	11.2	13.0	13.4	12.8	15.9	14.7	13.1	11.8	–	–	–	–	–	–	–	–	–	–	–
—Any of the listed barriers to innovation, % of respondents <sup>10, 11, 12, 31</sup>	–	–	38.1	46.3	43.7	43.2	44.6	44.9	45.1	44.1	–	40.3	–	–	–	–	–	–	–	–	–	–	–
—None of the listed barriers to innovation, % of respondents <sup>10, 11, 12, 31</sup>	–	–	–	–	–	56.8	55.4	55.1	54.9	55.9	–	–	–	–	–	–	–	–	–	–	–	–	–
Proportion of businesses seeking debt or equity finance for innovation, % of respondents <sup>13, 14</sup>	–	–	12.7	13.6	15.4	12.7	11.1	8.2	12.6	14.4	9.8	10.5	–	–	–	–	–	–	–	–	–	–	–
Financing through local equity market, score ranges from 1-7 (best) <sup>15</sup>	–	–	–	6.31	5.89	5.34	4.60	4.59	4.66	4.72	4.97	4.81	4.98	5.06	–	5.06	4.43	4.64	5.60	10	12th of 38	2016	
Ease of access to loans, score ranges from 1-7 (best) <sup>15</sup>	–	–	–	4.83	4.88	4.95	4.41	3.92	3.68	3.51	3.32	3.32	5.08	–	5.08	4.46	4.59	5.46	5.46	7	11th of 38	2016	
Venture capital availability, score ranges from 1-7 (best) <sup>15</sup>	–	–	–	4.83	4.66	4.43	3.97	3.83	3.54	3.34	3.56	3.40	3.13	3.16	–	3.16	3.50	3.47	4.66	32	25th of 38	2016	
Venture Capital Investment, million A\$ <sup>16, 32</sup>	–	–	606	813	901	683	401	229	320	262	295	384	223	–	–	–	–	–	–	–	–	–	–
Venture capital investments, % of GDP <sup>17, 18</sup>	–	–	–	–	–	–	–	–	0.021	0.017	0.018	0.023	–	–	0.023	0.049	0.025	0.192	88	18th of 30	2015		
Early stage venture capital investment, % of GDP <sup>17, 18</sup>	–	–	–	–	–	–	–	–	0.009	0.009	0.007	0.010	–	–	0.010	0.029	0.015	0.107	91	20th of 28	2015		
Later Stage Private Equity investment, % of GDP <sup>17, 18</sup>	–	–	–	–	–	–	–	–	0.012	0.007	0.011	0.014	–	–	0.014	0.020	0.006	0.082	83	10th of 28	2015		
Market capitalization of listed companies, % of GDP <sup>19</sup>	66.6	89.8	116.0	147.0	152.0	64.8	136.0	127.0	86.2	90.2	87.3	88.6	88.6	–	–	88.6	75.6	75.4	162.0	45	9th of 27	2015	
Stocks traded, total value, billion, current US\$ <sup>19</sup>	98	213	613	859	1,370	840	841	1,130	906	906	788	703	751	–	–	751	4,100	104	17,910	96	9th of 23	2015	
Stocks traded, total value, % of GDP <sup>19</sup>	26.7	51.4	88.4	115.0	161.0	79.6	90.8	99.0	81.2	58.9	50.4	48.4	56.0	–	–	56.0	64.5	24.7	201.2	72	9th of 23	2015	
Stocks traded, turnover ratio, % <sup>19</sup>	40.0	57.2	76.2	78.4	106.0	123.0	66.7	77.8	94.2	65.3	57.7	54.6	63.2	–	–	63.2	79.5	42.6	220.8	71	9th of 23	2015	
Government procurement of advanced tech products, score ranges from 1-7 (best) <sup>15</sup>	–	–	–	4.0	4.2	4.1	4.0	4.1	3.9	3.7	3.6	3.4	3.3	3.3	–	3.3	3.6	3.5	4.6	27	26th of 38	2016	
Firm-level technology absorption, score ranges from 1-7 (best) <sup>15</sup>	–	–	–	5.5	5.7	5.8	5.9	5.9	5.8	5.9	5.8	5.6	5.6	5.4	–	5.4	5.3	5.4	6.0	10	20th of 38	2016	
Entrepreneurial intentions, % <sup>20, 33</sup>	–	7.9	12.0	10.6	–	–	–	8.7	12.3	–	–	10.0	14.4	12.3	–	12.3	14.9	12.1	29.9	59	15th of 30	2016	
Buyer sophistication, score ranges from 1-7 (best) <sup>15</sup>	–	–	–	5.8	5.3	4.8	4.7	4.4	4.2	4.1	3.8	3.7	3.8	3.8	–	3.8	4.0	4.1	4.9	22	23rd of 38	2016	
Percentage of final household consumption expenditure on Health, Communications and Education, % <sup>21</sup>	9.6	10.6	11.8	11.8	11.7	12.0	12.2	12.3	12.4	13.0	13.1	13.3	–	–	–	13.3	8.9	8.4	15.8	16	4th of 33	2014	
Statutory corporate income tax rates, % <sup>22</sup>	–	–	–	30	30	30	30	30	30	30	30	30	30	30	–	30	25	32	7	5th of 22	2016		
Start-up procedures to register a business, count <sup>19, 31</sup>	–	–	3	3	3	3	3	3	3	3	3	3	3	–	–	3	5	4	2	36	4th of 37	2015	
Cost of business start-up procedures, % of GNI per capita <sup>19, 31</sup>	–	–	1.9	1.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	–	–	0.7	3.8	1.5	0.2	337	10th of 37	2015	
ISO 14001 environmental certificates, per billion PPP\$ GDP <sup>23</sup>	–	–	–	–	–	–	–	–	–	12.7	15.6	14.0	24.8	–	–	37.9	36.4	24.9	88.8	57	14th of 37	2016	
Total environment related taxes, % of GDP <sup>24</sup>	2.57	2.41	2.20	1.96	1.94	1.81	1.83	1.77	1.77	2.00	–	–	–	–	–	2.00	2.28	2.37	3.69	46	24th of 35	2012	

– = data not available

**Table notes:** (i) Data are presented in calendar year format. Where the data are in financial years, it is expressed in terms of the year where the financial year begins e.g. 2010–11 is shown as 2010. (ii) OECD+ includes all countries in the OECD, as well as China, Taiwan and Singapore (where data is available). (iii) The 'Australia's score' field presents the Australian values used in the OECD+ comparisons. (iv) This is the arithmetic (simple) average of the OECD+ country scores. (v) This is the median of the OECD+ country scores (vi) This is the arithmetic (simple) average of the top five OECD+ countries in a ranked list. (vii) This represents Australia's distance from the frontier as defined by the average of the top five ranked OECD+ countries. It is calculated as 100\*(Top five average - Australia's score)/ Top 5 average. Where the solution is a negative value or zero, 'no gap' is shown in the cell. (viii) OECD+ rankings are performed on those OECD+ countries for which data are available. Individual data availability may vary between indicators.

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**Indicator notes (26 - 34):** [26] 1996 data used in place of 1995 data.; [27] Index is value taken at end June. June 2014 refers to 2013 year. Data code in Thomson Reuters is AUCAPUTLQ; [28] NULL; [29] Series ID A2304757K; series type original; data type derived; collection month is June; [30] May 1970 = 100; values are for June month; [31] Index is value taken at end June. June 2014 refers to 2013 year. Data code in Thomson Reuters is AUNAB...Q (use monthly records); [32] A lower score is better, gap from the top 5 performers represents absolute gap; [33] Venture capital from the ABS data is defined as: pre-seed; seed; start-up; and early expansion; [34] 2002 data used in place of 2000 data.

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Table 6: Australia's education and skills base

Indicators	Australian Trend Data (i)															OECD+ Comparisons (ii)						
	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Australia's score (iii)	OECD+ Average (iv)	OECD+ Median (v)	OECD+ top 5 average (vi)	Gap from the top 5 OECD+ performers (%) (vii)	Ranking against OECD+ countries (viii)	Year of OECD+ comparison
Total expenditure on educational institutions, % of GDP <sup>1 2 3 4</sup>	5.05	5.09	5.19	5.71	5.18	5.21	5.95	5.94	5.68	5.58	5.61	–	–	–	–	5.61	5.21	5.19	6.39	12	13rd of 33	2013
Public expenditure on education, % of GDP <sup>5 6 7</sup>	4.81	4.49	4.46	4.60	4.28	4.26	4.94	5.01	4.76	4.57	4.75	–	–	–	–	4.75	4.79	4.68	6.48	27	16th of 32	2013
Expenditure on tertiary education institutions, % of GDP <sup>1 2 3 4</sup>	1.57	1.45	1.46	1.63	1.55	1.49	1.60	1.62	1.60	1.59	1.67	–	–	–	–	1.67	1.54	1.47	2.24	25	13rd of 33	2013
Public expenditure on tertiary education, % of GDP <sup>5 6 7</sup>	–	1.16	1.14	1.13	1.00	0.97	1.10	1.15	1.12	1.14	1.32	0.97	–	–	–	1.32	1.33	1.31	2.10	37	15th of 33	2013
Expenditure on primary, secondary and post-secondary (non-tertiary educational) institutions, % of GDP <sup>1 2 3 4</sup>	3.40	3.64	3.72	3.99	3.51	3.73	4.19	4.32	4.09	3.98	3.94	–	–	–	–	3.94	3.67	3.66	4.71	16	10th of 33	2013
Percentage of 25-34 year olds with bachelor degree or higher, % <sup>8 9 10 11</sup>	14.3	22.2	29.2	29.2	30.6	31.9	34.6	34.0	35.0	36.8	35.2	36.9	37.3	37.1	–	35.2	32.0	33.1	42.3	17	12th of 34	2013
Proportion of population aged 25-64 attaining tertiary education, % <sup>11 12 13</sup>	–	27.5	31.7	33.0	33.7	36.2	36.9	37.6	38.3	41.3	39.5	41.9	42.9	–	–	42.9	34.5	35.3	48.7	12	7th of 35	2015
Proportion of population aged 25-34 with tertiary education, % <sup>11 12 13</sup>	–	31.4	38.1	38.8	40.7	42.0	44.8	44.4	44.6	47.2	45.7	48.1	48.5	–	–	48.5	41.8	41.0	58.0	16	8th of 35	2015
Proportion of population aged 25-64 attaining upper secondary or post-secondary non-tertiary education, % <sup>11 12 13</sup>	–	31.3	33.3	33.7	34.4	33.8	34.1	35.6	35.7	35.2	36.2	35.2	36.1	–	–	36.1	43.1	41.1	64.5	44	26th of 34	2015
Proportion of population aged 25-64 attaining below upper secondary school education, % <sup>11 12 13 36</sup>	–	41.2	35.0	33.3	31.8	30.1	29.0	26.8	25.9	23.6	24.3	22.9	21.0	–	–	21.0	22.8	18.8	8.7	142	21st of 34	2015
Share of international tertiary education market, % <sup>14 15</sup>	–	5.1	6.5	6.3	7.0	6.9	7.0	6.6	6.1	5.5	6.2	–	–	–	–	6.2	2.1	0.9	9.3	33	3rd of 36	2013
Percentage of adults scoring at proficiency level 3 or above in literacy, % <sup>16</sup>	–	–	–	–	–	–	–	–	–	–	56.4	–	–	–	–	56.4	50.0	50.0	61.5	8	5th of 22	2013
Percentage of adults scoring at proficiency level 3 or above in numeracy, % <sup>16</sup>	–	–	–	–	–	–	–	–	–	–	45.9	–	–	–	–	45.9	46.8	49.2	57.6	20	13rd of 22	2013
Percentage of adults scoring at proficiency level 2 or above in problem solving in technology-rich environments, % <sup>16</sup>	–	–	–	–	–	–	–	–	–	–	38.0	–	–	–	–	38.0	29.4	33.8	41.3	8	6th of 22	2013
VET system Government recurrent expenditure (per adjusted full year equivalent (FYTEs)), A\$ <sup>17 27</sup>	–	–	–	–	11,402	11,009	10,671	10,031	9,922	9,501	9,697	–	–	–	–	–	–	–	–	–	–	–
Participation rate of Australians aged 15 years and older in VET, % <sup>18 19 20</sup>	–	–	11.4	11.4	11.3	11.3	11.6	11.6	12.1	11.8	12.1	11.2	10.0	–	–	–	–	–	–	–	–	–
Number of qualifications completed by students in VET, '000s <sup>18 21</sup>	–	–	296	292	319	352	394	441	519	583	562	577	–	–	–	–	–	–	–	–	–	–
Number of qualification equivalents completed by students in VET (Management and commerce), '000s <sup>17 22</sup>	–	–	127	128	142	153	153	168	194	203	167	169	–	–	–	–	–	–	–	–	–	–
Businesses reporting some or a lot of difficulty in recruiting staff, % of all employers <sup>23 24</sup>	–	–	40.6	–	44.4	–	33.7	–	34.1	–	36.4	–	–	–	–	–	–	–	–	–	–	–
Employers who use new product releases to determine training needs, % of all employers <sup>23</sup>	–	–	7.1	–	3.2	–	3.0	–	3.5	–	–	–	–	–	–	–	–	–	–	–	–	–
Barriers to entrepreneurship <sup>25 26 28 29</sup>	–	1.9	1.8	–	–	1.7	–	–	–	–	1.7	–	–	–	–	–	–	–	–	–	–	–
Barrier to innovation: Lack of skilled persons in any location, % of respondents <sup>26 27 28 26</sup>	–	–	22.8	25.7	23.0	19.4	20.4	20.0	17.8	17.2	16.4	16.4	–	–	–	1.7	1.7	1.7	1.2	41	18th of 36	2013
Percentage of government-funded graduates employed in labour force after completing VET, % of respondents <sup>29 3</sup>	–	–	80.7	81.6	82.7	82.4	79.7	77.6	78.7	77.9	78.1	77.6	74.2	74.9	–	–	–	–	–	–	–	–
Percentage of government-funded VET graduates satisfied with overall quality of training, % of respondents <sup>29 30 31</sup>	–	–	86.7	87.0	88.2	88.0	88.5	88.3	88.9	89.1	87.3	87.6	86.7	86.1	–	–	–	–	–	–	–	–
Labour force participation rate <sup>32</sup>	63.5	63.4	64.8	65.1	65.5	65.4	65.2	65.4	65.1	65.0	64.7	64.9	64.8	–	–	–	–	–	–	–	–	–
Percentage of employers recruiting international students, % <sup>33 34</sup>	–	–	15.7	20.7	24.1	35.3	20.5	19.0	30.8	23.2	18.5	13.3	–	–	–	–	–	–	–	–	–	–
Employer difficulty sourcing/recruiting graduates, % <sup>33 35</sup>	–	–	49.3	56.5	62.4	53.5	30.7	36.3	42.1	34.3	32.6	41.0	–	–	–	–	–	–	–	–	–	–
Employer overall satisfaction with VET system, % <sup>17</sup>	–	–	70.7	–	74.0	–	77.8	–	77.8	–	73.1	–	72.9	–	–	–	–	–	–	–	–	–

– = data not available

**Table notes:** (i) Data are presented in calendar year format. Where the data are in financial years, it is expressed in terms of the year where the financial year begins e.g. 2010–11 is shown as 2010. (ii) OECD+ includes all countries in the OECD, as well as China, Taiwan and Singapore (where data is available). (iii) The 'Australia's score' field presents the Australian values used in the OECD+ comparisons. (iv) This is the arithmetic (simple) average of the OECD+ country scores. (v) This is the median of the OECD+ country scores (vi) This is the arithmetic (simple) average of the top five OECD+ countries in a ranked list. (vii) This represents Australia's distance from the frontier as defined by the average of the top five ranked OECD+ countries. It is calculated as 100\*(Top five average - Australia's score)/ Top 5 average. Where the solution is a negative value or zero, 'no gap' is shown in the cell. (viii) OECD+ rankings are performed on those OECD+ countries for which data are available. Individual data availability may vary between indicators.

**Sources (1 - 34):** [1] OECD (2003-2013) Education at a Glance, 2003 - 2013, DOI: 10.1787/19991487; [2] OECD (2014) Education at a Glance, 2014, Indicator B2: What proportion of national wealth is spent on education, URL: <http://www.oecd.org/>; [3] OECD (2015) Education at a Glance, 2015, Indicator B2: What proportion of national wealth is spent on education?, DOI: 10.1787/19991487; [4] OECD (2016) Education at a Glance, 2016, Indicator B2. What proportion of national wealth is spent on education?, URL: <http://www.oecd.org/>; [5] OECD (2014) Education at a Glance, 2014, Indicator B4: What is the total public spending on education?, URL: <http://www.oecd.org/>; [6] OECD (2015) Education at a Glance, 2015, Indicator B4: What is the total public spending on education?, DOI: 10.1787/19991487; [7] OECD (2016) Education at a Glance, 2016, Indicator B4. What is the total public spending on education?, URL: <http://www.oecd.org/>; [8] ABS (2005-2008) Education and Work, Australia, cat. no. 6227.0, 2005 - 2008, Persons aged 15–64 years, Level of highest non-school qualification and age, URL: <http://www.abs.gov.au/>; [9] ABS (2015) Education and Work, Australia, cat. no. 6227.0, 2015, Non-school qualification at Bachelor Degree level or above, persons aged 20–64 years, URL: <http://www.abs.gov.au/>; [10] ABS (2016) Education and Work, Australia, cat. no. 6227.0, 2016, Highest non-school qualification: Bachelor Degree level or above, URL: <http://www.abs.gov.au/>; [11] OECD (2015) Education at a Glance, 2015 Interim report, Indicator A1: To what level have adults studied?, URL: <http://www.oecd.org/>; [12] OECD (2015) Education at a Glance, 2015, Indicator A1: To what level have adults studied?, DOI: 10.1787/19991487; [13] OECD (2016) Education at a Glance, 2016, Indicator A1. To what level have adults studied?, URL: <http://www.oecd.org/>; [14] OECD (2014) Education at a Glance, 2014, Indicator C4: Who studies abroad and where?, URL: <http://www.oecd.org/>; [15] OECD (2015) Education at a Glance, 2015, Indicator C4: Who studies abroad and where?, DOI: 10.1787/19991487; [16] OECD (2013) Skills Outlook (PIAAC), 2013, URL: <http://skills.oecd.org/>; [17] NCVET (2015-2016) Special data request from NCVET, 2015 - 2016; [18] NCVET (2009-2014) Students and Courses, 2009 - 2013, URL: <http://www.ncver.edu.au/>; [19] NCVET (2015) Students and Courses, 2014, Government-funded students and courses, URL: <http://www.ncver.edu.au/>; [20] NCVET (2016) Students and Courses, 2015, Government-funded students and courses: Australia, URL: <http://www.ncver.edu.au/>; [21] NCVET (2015-2016) Students and Courses, 2014 - 2015, Australian vocational education and training statistics: Government-funded students and courses, URL: <http://www.ncver.edu.au/>; [22] NCVET (2014) Special data request from NCVET, 9-Sep-14, Table 1; [23] NCVET (2011-2013) Employer's Use and Views of the VET System, 2011 - 2013, URL: <http://www.ncver.edu.au/>; [24] NCVET (2015) Employer's Use and Views of the VET System, 2015, Index 1: Publication tables, URL: <http://www.ncver.edu.au/>; [25] ABS (2008-2013) Selected Characteristics of Australian Business, cat. no. 8167.0, 2005-06 - 2011-12, Barriers to innovation - by innovation status, employment size, and industry, URL: <http://www.abs.gov.au/>; [26] ABS (2014-2015) Selected Characteristics of Australian Business, cat. no. 8167.0, 2012-13 - 2013-14, Barriers, URL: <http://www.abs.gov.au/>; [27] ABS (2016) Innovation in Australian Business, cat. no. 8158.0, 2014-15, Barriers to innovation, URL: <http://www.abs.gov.au/>; [28] NCVET (2014) Student Outcomes, 2014, Table 1, URL: <http://www.ncver.edu.au/>; [29] NCVET (2015) Student Outcomes, 2015, Times series of key findings, URL: <http://www.ncver.edu.au/>; [30] NCVET (2016) Student Outcomes, 2016, Key outcome measures for government-funded graduates by provider type and funding source, URL: <http://www.ncver.edu.au/>; [31] ABS (2016) Labour Force, Australia, cat. no. 6202.0, June 2016, URL: <http://www.abs.gov.au/>; [32] Graduate Careers Australia (2014) Graduate Outlook Survey, 2013, URL: <http://www.graduatereers.com.au/>; [33] Graduate Careers Australia (2015) Graduate Outlook Survey, 2014, Figure 6: Proportion of employers who recruited international graduates, URL: <http://www.graduatereers.com.au/>; [34] Graduate Careers Australia (2015) Graduate Outlook Survey, 2014, Figure 4: Proportion of employers who had difficulty sourcing graduate, URL: <http://www.graduatereers.com.au/>

**Indicator notes (35 - 36):** [35] A lower score is better, gap from the top 5 performers represents absolute gap; [36] 2015 prices

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Table 7: Australia's investment in research

Indicators	Australian Trend Data (i)																OECD+ Comparisons (ii)						
	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Australia's score (iii)	OECD+ Average (iv)	OECD+ Median (v)	OECD+ top 5 average (vi)	Gap from the top 5 OECD+ performers (%) (vii)	Ranking against OECD+ countries (viii)	Year of OECD+ comparison	
Gross Expenditure on R&D (GERD), % of GDP <sup>1 10 11</sup>	1.58	1.48	1.73	2.00	–	2.25	–	2.19	2.12	–	2.11	–	–	–	–	2.11	1.97	1.76	3.67	43	14th of 37	2013	
Gross Expenditure on R&D (GERD), billion A\$ <sup>2 3 4 10 11</sup>	8.8	10.4	16.0	21.8	–	28.3	–	30.9	31.7	–	33.5	–	–	–	–	–	–	–	–	–	–	–	
Gross Expenditure on R&D (GERD) per capita population, current PPP \$ <sup>1 10 11</sup>	366	415	582	750	–	889	–	926	928	–	991	–	–	–	–	991	805	754	1,484	33	15th of 37	2013	
Business expenditure on R&D (BERD), billion A\$ <sup>5 6</sup>	4.4	5.0	10.4	12.6	15.0	17.3	16.8	18.0	18.3	–	18.8	–	–	–	–	–	–	–	–	–	–	–	
Higher education expenditure on R&D (HERD), % of GDP <sup>1 11</sup>	0.39	0.40	0.47	0.50	–	0.54	–	0.58	0.60	0.63	0.62	0.63	–	–	–	0.63	0.47	0.45	0.85	26	10th of 37	2014	
Higher education expenditure on R&D (HERD), billion A\$ <sup>9 10 11</sup>	2.3	2.8	4.3	5.4	–	6.8	–	8.2	–	9.6	–	10.1	–	–	–	–	–	–	–	–	–	–	
Higher education expenditure on R&D (HERD) financed abroad, % <sup>8 10 11</sup>	1.07	2.17	2.96	2.89	–	2.03	–	2.20	–	2.40	–	2.37	–	–	–	–	–	–	–	–	–	–	
Percentage of Higher education expenditure on R&D (HERD) financed by industry, % <sup>1 11</sup>	4.66	5.32	6.20	6.76	–	5.85	–	4.91	–	4.73	–	5.05	–	–	–	5.05	6.45	4.72	17.32	71	16th of 32	2014	
Government expenditure on R&D (GOVERD), % of GDP <sup>1 10 11</sup>	0.37	0.33	0.27	0.29	–	0.27	–	0.27	0.24	0.24	0.24	0.21	–	–	–	0.21	0.21	0.21	0.41	49	20th of 37	2014	
Government expenditure on R&D (GOVERD), billion A\$ <sup>7 10 11</sup>	2.06	2.36	2.49	3.10	–	3.42	–	–	3.55	3.73	–	3.33	–	–	–	–	–	–	–	–	–	–	
Percentage of Government expenditure on R&D (GOVERD) financed by industry, % <sup>1 10 11</sup>	12.0	12.3	13.6	11.5	–	9.9	–	7.1	7.7	–	–	9.9	–	–	–	–	–	–	–	–	–	–	
Public spending in environment-related R&D, % total public spending on R&D <sup>8</sup>	1.19	2.95	3.18	3.29	3.81	3.57	5.47	5.01	4.86	–	–	–	–	–	–	4.86	2.41	2.16	4.50	no gap	2nd of 28	2011	
Percentage of Gross Expenditure on R&D (GERD) performed by the Private Non-Profit sector, % <sup>1 10 11</sup>	2.11	2.77	3.00	2.80	–	2.63	–	2.96	2.98	–	2.84	–	–	–	–	2.84	1.84	1.14	6.38	55	5th of 26	2013	
Private non-profit R&D, million A\$ <sup>7 9 10 11</sup>	186	289	479	609	–	744	–	–	944	961	–	1,007	–	–	–	–	–	–	–	–	–	–	
Government Budget Appropriations or Outlays for R&D (GBAORD), % of GDP <sup>1</sup>	0.57	0.53	0.52	0.52	0.46	0.46	0.52	0.50	0.48	0.45	0.45	0.44	0.42	0.41	–	0.41	0.69	0.71	0.92	56	15th of 17	2016	
Government-financed Gross Expenditure on R&D (GERD), % of GDP <sup>1 10 11</sup>	0.72	0.67	0.70	0.75	–	0.78	–	–	–	–	–	–	–	–	–	0.78	0.56	0.55	0.87	11	7th of 32	2008	

– = data not available

**Table notes:** (i) Data are presented in calendar year format. Where the data are in financial years, it is expressed in terms of the year where the financial year begins e.g. 2010–11 is shown as 2010. (ii) OECD+ includes all countries in the OECD, as well as China, Taiwan and Singapore (where data is available). (iii) The 'Australia's score' field presents the Australian values used in the OECD+ comparisons. (iv) This is the arithmetic (simple) average of the OECD+ country scores. (v) This is the median of the OECD+ country scores (vi) This is the arithmetic (simple) average of the top five OECD+ countries in a ranked list. (vii) This represents Australia's distance from the frontier as defined by the average of the top five ranked OECD+ countries. It is calculated as 100\*(Top five average - Australia's score)/ Top 5 average. Where the solution is a negative value or zero, 'no gap' is shown in the cell. (viii) OECD+ rankings are performed on those OECD+ countries for which data are available. Individual data availability may vary between indicators.

**Sources (1 - 9):** [1] OECD (2016) Main Science and Technology Indicators, 2016-1, URL: <http://stats.oecd.org/>; [2] ABS (2010) Research and Experimental Development, All Sector Summary, Australia, cat. no. 8112.0, 2010, Gross resources devoted to R&D, summary statistics, URL: <http://www.abs.gov.au/>; [3] ABS (2014-2016) Research and Experimental Development, Higher Education Organisations, Australia, cat. no. 8111.0, 2012 - 2014, Higher education resources devoted to R&D, summary statistics, URL: <http://www.abs.gov.au/>; [4] ABS (2015) Research and Experimental Development, Businesses, Australia, cat. no. 8104.0, 2013-14, Summary, URL: <http://www.abs.gov.au/>; [5] ABS (2013) Research and Experimental Development, Businesses, Australia, cat. no. 8104.0, 2013, Business expenditure of R&D, summary statistics, URL: <http://www.abs.gov.au/>; [6] ABS (2015) Research and Experimental Development, Businesses, Australia, cat. no. 8104.0, 2013-14, Business expenditure on R&D, summary statistics, URL: <http://www.abs.gov.au/>; [7] ABS (2014-2016) Research and Experimental Development, Government and Private Non-Profit Organisations, Australia, cat. no. 8109.0, 2012-13 - 2014-15, Government expenditure on R&D, summary statistics, URL: <http://www.abs.gov.au/>; [8] OECD (2014) Green growth indicators, 2014, DOI: 10.1787/data-00686-en; [9] ABS (2014) Research and Experimental Development, Government and Private Non-Profit Organisations, Australia, cat. no. 8109.0, 2012-13, Private non-profit expenditure on R&D, summary statistics, URL: <http://www.abs.gov.au/>

**Indicator notes (10 - 11):** [10] 1996 data used in place of 1995 data.; [11] 2004 data used in place of 2005 data.



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Table 8: Indicators of Australia's research workforce

Indicators	Australian Trend Data (i)															OECD+ Comparisons (ii)							
	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Australia's score (iii)	OECD+ Average (iv)	OECD+ Median (v)	OECD+ top 5 average (vi)	Gap from the top 5 OECD+ performers (%) (vii)	Ranking against OECD+ countries (viii)	Year of OECD+ comparison	
Share of professionals and technicians in total employment, % <sup>1 2 3 4</sup>	–	–	–	37.6	–	35.8	–	36.1	–	31.8	–	–	–	–	–	31.8	33.7	34.0	44.6	29	21st of 31	2012	
Number of students completing higher degree by research in Australia <sup>5</sup>	–	5,434	6,820	7,103	7,141	7,178	7,092	7,403	7,961	8,230	9,209	9,579	10,042	–	–	–	–	–	–	–	–	–	–
Number of domestic students completing higher degree by research in Australia <sup>5</sup>	–	4,557	5,510	5,566	5,506	5,556	5,382	5,460	5,647	5,601	6,165	6,238	6,628	–	–	–	–	–	–	–	–	–	–
Number of international students completing higher degree by research in Australia <sup>5</sup>	–	877	1,310	1,537	1,635	1,622	1,710	1,943	2,314	2,629	3,044	3,341	3,414	–	–	–	–	–	–	–	–	–	–
PhD graduation rate, % <sup>6</sup>	–	1.29	1.71	1.89	1.91	1.89	1.85	2.05	2.16	2.21	2.46	2.50	–	–	–	2.50	1.70	1.61	3.06	18	8th of 30	2014	
Proportion of international students enrolled in advanced research programs, % <sup>9</sup>	–	–	17.8	19.1	20.8	23.3	26.3	28.7	30.7	32.5	–	–	–	–	–	32.5	19.9	12.2	51.5	37	8th of 33	2012	
Researchers, % of total labour force <sup>11 13 14</sup>	0.67	0.69	0.80	0.82	–	0.82	–	0.86	–	–	–	–	–	–	–	0.86	0.72	0.76	1.21	29	10th of 33	2010	
R&D personnel, % of total employment <sup>11 13 14</sup>	1.09	1.06	1.19	1.23	–	1.27	–	1.32	–	–	–	–	–	–	–	1.32	1.14	1.20	1.90	30	15th of 32	2010	
Availability of research and training services, score ranges from 1-7 (best) <sup>12</sup>	–	–	–	5.31	5.20	5.27	5.28	5.26	5.39	5.32	5.07	5.21	5.65	5.78	–	5.77	5.24	5.31	6.19	7	14th of 38	2016	

– = data not available

**Table notes:** (i) Data are presented in calendar year format. Where the data are in financial years, it is expressed in terms of the year where the financial year begins e.g. 2010–11 is shown as 2010. (ii) OECD+ includes all countries in the OECD, as well as China, Taiwan and Singapore (where data is available). (iii) The 'Australia's score' field presents the Australian values used in the OECD+ comparisons. (iv) This is the arithmetic (simple) average of the OECD+ country scores. (v) This is the median of the OECD+ country scores (vi) This is the arithmetic (simple) average of the top five OECD+ countries in a ranked list. (vii) This represents Australia's distance from the frontier as defined by the average of the top five ranked OECD+ countries. It is calculated as 100\*(Top five average - Australia's score)/ Top 5 average. Where the solution is a negative value or zero, 'no gap' is shown in the cell. (viii) OECD+ rankings are performed on those OECD+ countries for which data are available. Individual data availability may vary between indicators.

**Sources (1 - 12):** [1] OECD (2007) Science, Technology and Industry Scoreboard, 2007, DOI: 10.1787/sti\_scoreboard-2007-en; [2] OECD (2009) Science, Technology and Industry Scoreboard, 2009, DOI: 10.1787/sti\_scoreboard-2009-en; [3] OECD (2011) Science, Technology and Industry Scoreboard, 2011, DOI: 10.1787/sti\_scoreboard-2011-en; [4] OECD (2013) Science, Technology and Industry Scoreboard, 2013, DOI: 10.1787/sti\_scoreboard-2013-en; [5] Australian Government (2014) Special data request from Department of Education, 2014; [6] Australian Government (2015-2016) Higher Education Research Data Collection (HERDC), 2014-1 - 2015, Award Course Completions, URL: <http://education.gov.au/>; [7] OECD (2014) Education at a Glance, 2014, Indicator A3: How many students are expected to complete tertiary education?, URL: <http://www.oecd.org/>; [8] OECD (2016) Education at a Glance, 2016, OECD.Stat, URL: <http://www.oecd.org/>; [9] OECD (2007-2013) Education at a Glance, 2007 - 2013, DOI: 10.1787/19991487; [10] OECD (2014) Education at a Glance, 2014, Indicator C4: Who studies abroad and where?, URL: <http://www.oecd.org/>; [11] OECD (2016) Main Science and Technology Indicators, 2016-1, URL: <http://stats.oecd.org/>; [12] World Economic Forum (2014-2016) Global Competitiveness Index, 2014-15 - 2016-17, URL: <http://www.weforum.org/>

**Indicator notes (13 - 14):** [13] 1996 data used in place of 1995 data.; [14] 2004 data used in place of 2005 data.

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Table 9: Quality measures of Australia's research publications

Indicators	Australian Trend Data (i)																OECD+ Comparisons (ii)						
	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Australia's score (iii)	OECD+ Average (iv)	OECD+ Median (v)	OECD+ top 5 average (vi)	Gap from the top 5 OECD+ performers (%) (vii)	Ranking against OECD+ countries (viii)	Year of OECD+ comparison	
Share of world publications, % <sup>1, 2</sup>	2.45	2.77	2.90	–	3.01	3.09	3.19	3.29	3.38	3.49	3.61	3.73	3.85	–	–	3.85	3.04	1.12	12.57	69	9th of 37	2015	
Number of fields with higher than world average citation rate by field (out of 22) <sup>1</sup>	11	15	19	–	20	21	21	21	21	21	21	21	22	–	–	–	–	–	–	–	–	–	–
Relative citation impact <sup>2, 3</sup>	1.05	1.08	1.14	–	1.16	1.18	1.20	1.23	1.27	1.30	1.32	1.34	1.37	–	–	1.37	1.25	1.31	1.66	18	14th of 37	2015	
Share of world's top 1% highly cited publications, all disciplines <sup>1</sup>	2.5	3.1	3.5	–	3.9	4.4	5.0	5.4	5.7	6.2	6.5	7.1	7.3	–	–	7.3	4.9	1.7	20.3	64	7th of 37	2015	
Share of world's top 1% highly cited publications, natural sciences and engineering <sup>1</sup>	2.31	3.07	3.28	–	3.89	4.38	4.74	5.06	5.41	5.90	6.26	6.70	6.93	–	–	6.93	5.01	1.62	21.03	67	8th of 37	2015	
Share of world's top 1% highly cited publications, Social Sciences and Humanities <sup>1, 4</sup>	2.31	2.84	2.80	–	3.25	3.86	4.48	5.03	5.22	5.76	6.27	7.66	8.32	–	–	8.32	3.94	1.24	19.01	56	4th of 37	2015	
Share of world's top 1% highly cited publications attributed to international collaboration, All disciplines <sup>1</sup>	1.02	1.66	2.23	–	2.57	2.94	3.37	3.74	4.08	4.50	4.88	5.46	5.68	–	–	5.68	3.34	1.49	12.06	53	7th of 37	2015	
Share of world's top 1% highly cited publications attributed to international collaboration, Natural Sciences and Engineering <sup>1</sup>	1.06	1.81	2.26	–	2.77	3.16	3.49	3.82	4.16	4.61	4.98	5.44	5.65	–	–	5.65	3.54	1.48	12.89	56	8th of 37	2015	
Share of world's top 1% highly cited publications attributed to international collaboration, Social Science and Humanities <sup>1</sup>	0.80	1.17	1.53	–	1.77	1.92	2.36	2.73	2.98	3.32	3.70	4.75	5.11	–	–	5.11	2.17	0.90	8.99	43	5th of 37	2015	
Top 1% publications per Bn PPP GERD Offset <sup>1</sup>	119.7	132.7	126.0	–	131.7	143.1	151.9	152.5	153.1	158.0	165.0	–	–	–	–	165.0	144.5	130.3	300.3	45	12th of 35	2013	
Top 1% publications per Bn PPP GERD (excluding BERD) <sup>1, 4</sup>	226.1	261.6	255.9	–	282.5	312.9	346.3	365.3	383.9	396.5	405.2	–	–	–	–	405.2	347.3	345.5	623.1	35	11th of 35	2013	
Proportion of publications in top 1% <sup>1</sup>	1.0	1.1	1.2	–	1.2	1.4	1.5	1.6	1.6	1.7	1.8	1.8	1.8	–	–	1.8	1.7	1.7	2.7	33	14th of 37	2015	
Proportion of publications in top 10% <sup>1</sup>	10.5	11.2	11.8	–	12.2	12.9	13.4	13.6	14.0	14.1	14.2	14.4	14.2	–	–	14.2	12.8	13.4	17.0	16	14th of 37	2015	

– = data not available

**Table notes:** (i) Data are presented in calendar year format. Where the data are in financial years, it is expressed in terms of the year where the financial year begins e.g. 2010–11 is shown as 2010. (ii) OECD+ includes all countries in the OECD, as well as China, Taiwan and Singapore (where data is available). (iii) The 'Australia's score' field presents the Australian values used in the OECD+ comparisons. (iv) This is the arithmetic (simple) average of the OECD+ country scores. (v) This is the median of the OECD+ country scores (vi) This is the arithmetic (simple) average of the top five OECD+ countries in a ranked list. (vii) This represents Australia's distance from the frontier as defined by the average of the top five ranked OECD+ countries. It is calculated as 100\*(Top five average - Australia's score)/ Top 5 average. Where the solution is a negative value or zero, 'no gap' is shown in the cell. (viii) OECD+ rankings are performed on those OECD+ countries for which data are available. Individual data availability may vary between indicators.

**Sources (1):** [1] InCites (2016) InCites, 2016, Ref: Thomson Reuters subscription database

**Indicator notes (2 - 4):** [2] Data cover a five year period e.g. 2013 data covers 2009-2013 inclusive; [3] A value of 1.33 indicates Australian publications received, on average, a citation rate 33% higher than the world average for publications in their discipline and year; [4] Data covers a three year period e.g. 2013 data covers 2011-2013 inclusive. Per cent of world top publications produced by Australian authors. Top publications means papers (articles and reviews) that rank in the top 1% by citations for field and year

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Table 10: Research commercialisation outcomes

	Australian Trend Data (i)															OECD+ Comparisons (ii)						
	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Australia's score (iii)	OECD+ Average (iv)	OECD+ Median (v)	OECD+ top 5 average (vi)	Gap from the top 5 OECD+ performers (%) (vii)	Ranking against OECD+ countries (viii)	Year of OECD+
Number of formal agreements on academic/research collaboration between Australian universities and overseas institutions <sup>1 *</sup>	–	–	3,054	–	3,419	–	3,886	–	–	5,086	–	5,559	–	–	–	–	–	–	–	–	–	–
Adjusted gross income from Licenses, Options and Assignments by major publicly funded research agencies, universities and medical research institutes million A\$ <sup>2, 7 *</sup>	–	152	81	141	260	106	332	160	107	350	120	99	–	–	–	–	–	–	–	–	–	–
Number of Licenses, Options and Assignments yielding income from major publicly funded research agencies, universities and medical research institutes <sup>2 *</sup>	–	487	652	703	738	629	692	798	777	759	947	632	–	–	–	–	–	–	–	–	–	–
Number of patents granted worldwide from publicly funded research agencies, universities, and medical research institutes (MRIs) <sup>3 *</sup>	–	324	381	423	426	403	380	345	374	400	418	419	–	–	–	–	–	–	–	–	–	–
Value of equity holdings by major publicly funded research agencies, universities and medical research institutes, million A\$ <sup>2, 7 *</sup>	–	186	213	235	236	205	256	159	143	92	136	95	–	–	–	–	–	–	–	–	–	–
Number of start-up companies in which major publicly funded research agencies, universities and medical research institutes have an equity holding <sup>2 *</sup>	–	69	172	194	197	186	187	175	173	124	180	77	–	–	–	–	–	–	–	–	–	–
University income from Cooperative Research Centre (CRC) Research, million A\$ <sup>4, 5</sup>	–	81	130	131	126	124	123	119	108	117	104	108	101	–	–	–	–	–	–	–	–	–
University income from industry and other funding sources, million A\$ <sup>4, 5</sup>	–	331	492	627	672	773	666	797	832	830	925	981	1,139	–	–	–	–	–	–	–	–	–

– = data not available

**Table notes:** (i) Data are presented in calendar year format. Where the data are in financial years, it is expressed in terms of the year where the financial year begins e.g. 2010–11 is shown as 2010. (ii) OECD+ includes all countries in the OECD, as well as China, Taiwan and Singapore (where data is available). (iii) The 'Australia's score' field presents the Australian values used in the OECD+ comparisons. (iv) This is the arithmetic (simple) average of the OECD+ country scores. (v) This is the median of the OECD+ country scores (vi) This is the arithmetic (simple) average of the top five OECD+ countries in a ranked list. (vii) This represents Australia's distance from the frontier as defined by the average of the top five ranked OECD+ countries. It is calculated as 100\*(Top five average - Australia's score)/ Top 5 average. Where the solution is a negative value or zero, 'no gap' is shown in the cell. (viii) OECD+ rankings are performed on those OECD+ countries for which data are available. Individual data availability may vary between indicators.

**Sources (1 - 5):** [1] Universities Australia (2014) International Links of Australian Universities, October 2014, Type of Agreement, URL: <https://www.universitiesaustralia.edu.au/>; [2] Australian Government (2016) National Survey of Research Commercialisation (NSRC), 2014-15, URL: <http://www.innovation.gov.au/>; [3] Australian Government (2016) Special request from NSRC, 2016, Data Extracted from IP Australia Analytics Hub, Research Organisation Time Series; [4] Australian Government (2013-2014) Higher Education Research Data Collection (HERDC), 2012 - 2013, URL: <http://education.gov.au/>; [5] Australian Government (2015-2017) Higher Education Research Data Collection (HERDC), 2014 - 2015-1, Research Block Grants, URL: <http://education.gov.au/>

**Indicator notes (6 - 9):** [6] 2003 data used in place of 2005 data.; [7] Constant 2014 prices; [8] The data is drawn from the current time series of 55 organisations; [9] The data is based on 2000-2014 time series cohort of 53 organisations