

## Dépenses intérieures brutes de recherche et développement (R-D)

En pourcentage du PIB et répartition par source de financement

Country or area Pays ou zone	Year Année	Expenditure on R&D as a % of GDP Dépenses en R&D en % du PIB	Source of funds (%) / Source de financement (%)						
			Business enterprises Entreprises	Govern- ment Etat	Higher education Enseigne- ment supérieur	Private non- profit Institut. Privées sans but lucratif	Funds from abroad Fonds de l'étranger	Not specified/ Non précisé	
Total, all countries or areas	2005	1.5	...	...	...	...	...	...	...
Total, tous pays ou zones	2010	1.6	...	...	...	...	...	...	...
	2015	1.7	...	...	...	...	...	...	...
Northern Africa	2005	0.3	...	...	...	...	...	...	...
Afrique septentrionale	2010	0.4	...	...	...	...	...	...	...
	2015	0.5	...	...	...	...	...	...	...
Sub-Saharan Africa	2005	0.4	...	...	...	...	...	...	...
Afrique subsaharienne	2010	0.4	...	...	...	...	...	...	...
	2015	0.4	...	...	...	...	...	...	...
Northern America	2005	2.5	...	...	...	...	...	...	...
Amérique septentrionale	2010	2.7	...	...	...	...	...	...	...
	2015	2.7	...	...	...	...	...	...	...
Latin America & the Caribbean	2005	0.6	...	...	...	...	...	...	...
Amérique latine et Caraïbes	2010	0.7	...	...	...	...	...	...	...
	2015	0.7	...	...	...	...	...	...	...
Central Asia	2005	0.3	...	...	...	...	...	...	...
Asie centrale	2010	0.2	...	...	...	...	...	...	...
	2015	0.2	...	...	...	...	...	...	...
Eastern Asia	2005	2.0	...	...	...	...	...	...	...
Asie orientale	2010	2.2	...	...	...	...	...	...	...
	2015	2.4	...	...	...	...	...	...	...
South-eastern Asia	2005	0.6	...	...	...	...	...	...	...
Asie du Sud-Est	2010	0.8	...	...	...	...	...	...	...
	2015	0.9	...	...	...	...	...	...	...
Southern Asia	2005	0.7	...	...	...	...	...	...	...
Asie méridionale	2010	0.7	...	...	...	...	...	...	...
	2015	0.6	...	...	...	...	...	...	...
Western Asia	2005	0.7	...	...	...	...	...	...	...
Asie occidentale	2010	0.7	...	...	...	...	...	...	...
	2015	0.8	...	...	...	...	...	...	...
Europe	2005	1.6	...	...	...	...	...	...	...
Europe	2010	1.7	...	...	...	...	...	...	...
	2015	1.9	...	...	...	...	...	...	...
Oceania	2005	1.9	...	...	...	...	...	...	...
Océanie	2010	2.2	...	...	...	...	...	...	...
	2015	1.8	...	...	...	...	...	...	...
Australia and New Zealand	2005	1.9	...	...	...	...	...	...	...
Australie et Nouvelle-Zélande	2010	2.2	...	...	...	...	...	...	...
	2015	1.8	...	...	...	...	...	...	...
Albania <sup>1</sup>									
Albanie <sup>1</sup>	2008	0.2	3.3	80.8	8.6	...	7.4	...	...
Algeria <sup>1</sup>									
Algérie <sup>1</sup>	2005	0.1	...	...	...	...	...	...	...
American Samoa <sup>1</sup>	2005	0.4	...	...	...	...	...	...	...
Samoa américaines <sup>1</sup>	2006	0.4	...	...	...	...	...	...	...
Argentina	2005	0.4	31.0	59.6	5.7	3.0	0.7	~0.0	
Argentine	2008	0.5	26.5	67.6	4.4	1.0	0.6	~0.0	
	2010	0.6	...	...	...	...	...	...	
	2015	0.6	# 17.2	# 76.4	# 2.0	# 1.0	# 3.3	...	
Armenia	2005 <sup>1</sup>	0.3	...	77.5	...	...	4.7	17.8	
Arménie	2010 <sup>1</sup>	0.2	...	84.5	...	...	11.7	3.8	
	2016 <sup>2,3</sup>	0.2	...	72.9	...	...	1.8	25.2	
Australia	2004	1.9	54.6	40.3	0.4	1.9	2.9	...	
Australie	2008	2.4	61.9	34.6	0.1	1.8	1.6	...	
	*2010	2.4	...	...	...	...	...	...	
	*2015	1.9	...	...	...	...	...	...	

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							Institut. Privées sans but lucratif	Fonds de l'étranger
Austria Autriche	2004	2.2	47.2	32.6	0.4	0.5	19.4	...
	*2005	2.4	45.6	35.9	...	0.4	18.0	...
	2009	2.6	47.1	34.9	0.7	0.6	16.8	...
	*2010	2.7	45.1	38.3 <sup>4</sup>	...	0.5	16.1	...
	2015	3.0	49.7	32.6	0.6	0.5	16.6	...
	*2016	3.1	# 53.4	# 30.7 <sup>5</sup>	...	0.5	15.5	...
Azerbaijan Azerbaïdjan	2005	0.2 <sup>6</sup>	18.7	77.5	~0.0	1.3	2.4	...
	2010	0.2	# 9.6	# 88.2	0.3	1.9	~0.0	...
	2014	0.2	30.5	67.6	0.8	0.9	0.2	...
	2016	0.2	29.9	68.5	1.4	0.2	...	...
Bahrain Bahreïn	2014	0.1	21.8	41.5	21.2	2.0	12.4	1.1
Belarus Bélarus	2005	0.7 <sup>6</sup>	21.2	71.9	0.7	...	6.3	...
	2008	0.7 <sup>6</sup>	36.5	57.6	0.3	0.1	5.5	...
	2010	0.7 <sup>6</sup>	27.1	58.7	...	0.6	13.6	...
	2011	0.7 <sup>6</sup>	45.8	45.5	...	~0.0	8.7	...
	2016	0.5	38.7	44.7	...	...	16.6	...
Belgium Belgique	2005	1.8	59.7	24.7	2.6	0.6	12.4	...
	2010	2.1	57.6	25.4	3.1	0.6	13.3	...
	2015	2.5	58.6	22.5	2.0	0.4	16.5	...
	*2016	2.5	...	...	...	...	...	...
Bermuda <sup>7</sup> Bermudes <sup>7</sup>	2010 <sup>8</sup>	0.2	...	...	...	...	...	...
	2015	0.2	...	...	...	...	...	...
Bolivia (Plurin. State of) Bolivie (État plurin. de)	2002	0.3	16.0	20.0	31.0	19.0	14.0	...
	#2009	0.2	5.2	51.2	26.5	2.1	1.9	13.2
Bosnia and Herzegovina Bosnie-Herzégovine	2005 <sup>1</sup>	~0.0	...	...	...	...	...	...
	2009 <sup>1</sup>	~0.0	...	...	...	...	...	...
	2016	0.2	28.8	31.5	13.0	~0.0	26.3	0.3
Botswana Botswana	2005	0.5	...	...	...	...	...	...
	#2012	0.3	5.8	73.9	12.6	0.7	6.8	0.2
	2013	0.5	17.7	59.7	0.9	...	21.7	...
Brazil Brésil	2005	1.0	50.4	47.7	1.9	...	...	...
	2010	1.2	47.0	51.1	1.8	...	...	~0.0
	2015	1.3	47.5	50.2	2.3	...	...	~0.0
Brunei Darussalam Brunéi Darussalam	2003	~0.0 <sup>1</sup>	6.7	86.8	...	...	6.6	...
	#2004	~0.0 <sup>1</sup>	1.6	91.0	7.4	...	...	...
Bulgaria Bulgarie	2005	0.4	27.8	63.9	0.4	0.3	7.6	...
	2010	0.6	16.7	43.2	0.5	0.1	39.6	...
	2015	1.0	35.6	20.3	0.1	0.1	43.8	...
	2016	0.8	...	...	...	...	...	...
Burkina Faso Burkina Faso	2005	0.2 <sup>1</sup>	...	100.0	...	...	...	...
	2009	0.2	11.9	9.1	12.2	1.3	59.6	5.9
	#2014 <sup>3</sup>	0.2	...	98.4	~0.0	0.1	1.5	...
Burundi <sup>1</sup> Burundi <sup>1</sup>	2008	0.2	...	59.9	0.2	...	39.9	...
	2010	0.1	...	...	...	...	...	...
	2011	0.1	...	...	...	...	...	...
Cabo Verde <sup>1,9</sup> Cabo Verde <sup>1,9</sup>	2011	0.1	...	100.0	...	...	...	...
Cambodia Cambodge	2002 <sup>1</sup>	~0.0	...	17.9	...	43.0	28.4	10.6
	#2015	0.1	19.4	23.5	0.1	22.1	34.9	...
Canada Canada	2005	2.0	49.3	* 31.8	* 7.3	2.8	8.8	...
	2010	1.8	47.2	* # 34.9	* 7.9	3.5	6.6	...
	*2016	1.6	40.6	33.1	11.8	4.2	10.4	...
Chad <sup>2,3</sup> Tchad <sup>2,3</sup>	2016	0.3	...	100.0 <sup>10</sup>	...	...	...	...
	2010	0.3	25.4	40.4	12.7	1.7	19.8	...
Chile Chili	* #2016	0.4	35.8	46.4	14.4	1.5	1.9	...

Gross domestic expenditure on research and development (R&D) (*continued*)  
As a percentage of GDP and by source of funds

Dépenses intérieures brutes de recherche et développement (R-D) (*suite*)  
En pourcentage du PIB et répartition par source de financement

Country or area Pays ou zone	Year Année	Expenditure on R&D as a % of GDP Dépenses en R&D en % du PIB	Source of funds (%) / Source de financement (%)					
			Business enterprises Entreprises	Govern- ment Etat	Higher education Enseigne- ment supérieur	Institut. Privées sans but lucratif	Private non- profit	Funds from abroad
							Institut. Privées sans but lucratif	Fonds de l'étranger
China <sup>11</sup> Chine <sup>11</sup>	2005	1.3	67.0	26.3	...	...	0.9	...
	2010	1.7	71.7	24.0	...	...	1.3	...
	2016	2.1	76.1	20.0	...	...	0.7	...
China, Hong Kong SAR Chine, RAS de Hong Kong	2005	0.8	53.0 <sup>12</sup>	44.1	0.4	...	2.5	...
	2010	0.7	47.6 <sup>12</sup>	47.3	0.1	...	4.9	...
	2016	0.8	48.9 <sup>12</sup>	47.2	~0.0	...	3.9	...
China, Macao SAR Chine, RAS de Macao	2005	0.1 <sup>1</sup>	0.2	88.0	10.0	0.4	...	1.4
	2007	# 0.1 <sup>1</sup>	0.1	89.3	5.8	2.8	0.6	1.6
	2008	0.1 <sup>1</sup>	0.2	91.7	6.4	1.4	...	0.3
	2010 <sup>1</sup>	0.1	...	...	...	...	...	...
	2016 <sup>1</sup>	# 0.2	...	61.0	6.3	0.3	...	32.5
Colombia Colombie	2005	0.1	...	...	...	...	...	...
	2010	0.2	28.8	38.7	23.2	6.0	3.3	...
	2016	0.3	50.0	29.7	15.0	2.9	2.5	...
Costa Rica Costa Rica	2004	0.4	...	...	...	...	...	...
	2009	0.5	28.7	53.0	...	2.8	1.7	13.7
	2010	0.5	...	...	...	...	...	...
	2014	0.6	1.5	56.2	...	0.5	1.4	40.4
Croatia Croatie	2005	0.9	34.3	58.1	4.9	~0.0	2.6	...
	2010	0.7	38.8	49.2	2.0	0.2	9.9	...
	2015	0.9	46.6	36.4	2.0	0.5	14.5	...
	#2016	0.9	...	...	...	...	...	...
Cuba Cuba	2005	0.5	35.0	60.0	...	...	5.0	...
	2010	0.6	15.0	75.0	...	...	10.0	...
	2016	0.3	35.0	63.0	...	...	2.0	...
Cyprus Chypre	2005	0.4	16.8	67.0	4.2	1.2	10.9	...
	2010	0.4	12.7	68.3	3.5	0.5	15.0	...
	2013	0.5	15.8	59.5	5.4	0.6	18.8	0.1
	2015	0.5	20.0	50.6	5.8	0.6	23.0	...
	*2016	0.5	...	...	...	...	...	...
Czechia Tchéquie	2005	1.2	48.2	45.2	1.2	~0.0	5.4	...
	2010	1.3	40.8	44.4	0.9	~0.0	13.9	...
	2015	1.9	34.5	32.2	0.7	0.1	32.5	...
	*2016	1.7	...	...	...	...	...	...
Dem. Rep. of the Congo Rép. dém. du Congo	2005	# 0.1 <sup>13,14</sup>	...	100.0	...	...	...	...
	2009	0.1 <sup>13,14</sup>	...	100.0	...	...	...	...
	2015 <sup>1,13</sup>	# ~0.0	0.2	# 70.3	...	0.1	29.4	...
Denmark Danemark	2005	2.4	59.5	27.6	...	2.8	10.1	...
	2010	2.9	* 61.1	* 28.2 <sup>4</sup>	...	* 3.5	* 7.2	...
	*2015	3.0	59.4	29.4	...	4.7	6.6	...
	*2016	2.9	...	...	...	...	...	...
Ecuador Équateur	2003	0.1	...	...	...	...	...	...
	2010	0.4	1.0 <sup>3</sup>	40.2 <sup>3</sup>	9.6 <sup>3</sup>	0.5 <sup>3</sup>	5.3 <sup>3</sup>	43.4 <sup>15</sup>
	2014	0.4	0.1 <sup>3</sup>	42.4 <sup>3</sup>	12.6 <sup>3</sup>	0.1 <sup>3</sup>	2.5 <sup>3</sup>	42.3 <sup>15</sup>
Egypt Égypte	2005 <sup>1,13</sup>	0.2	...	...	...	...	...	...
	2010 <sup>2,3</sup>	0.4	...	...	...	...	...	...
	2016	0.7	5.9	93.8	0.2	0.1	~0.0	...
El Salvador El Salvador	2010	0.1	0.6	70.1	20.8	~0.0	8.3	0.1
	#2015	0.1	41.9	29.0	21.2	1.1	6.8	~0.0
Estonia Estonie	2005	0.9	38.5	43.5	0.8	0.2	17.1	...
	2010	1.6	43.6	44.1	0.6	0.2	11.4	...
	2015	1.5	41.0	46.4	0.2	0.2	12.2	...
	2016	1.3	...	...	...	...	...	...
Ethiopia Éthiopie	2005	0.2 <sup>1</sup>	...	69.2	...	0.1	30.8	...
	2010	# 0.2	10.8	56.0	1.1	~0.0	30.0	2.2
	2013	0.6	0.7	79.1	1.8	0.2	2.1	16.0
Faroe Islands Îles Féroé	2003	0.9	20.4	...	...	0.3	18.7	60.6 <sup>7,10,16</sup>

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Finland Finlande	2005	3.3	66.9	25.7	0.2	1.0	# 6.3	...
	2010	3.7	66.1	25.7	0.2	1.1	6.9	...
	2015	2.9	54.8	28.9	0.3	1.5	14.5	...
	2016	2.7	...	...	...	...	...	...
France France	2005	2.0	51.9	38.6	1.0	0.9	7.5	...
	#2010	2.2	53.5	37.1	1.0	0.8	7.5	...
	2015	2.3	54.0	34.8	2.6	0.9	7.6	...
	*2016	2.2	...	...	...	...	...	...
Gabon Gabon	2009	0.6	29.3	58.1	9.5	...	3.1	~0.0
Gambia Gambie	2009 <sup>1</sup>	~0.0	...	...	...	...	...	...
	2011 <sup>7</sup>	0.1	...	38.5	...	45.6	15.9	...
Georgia Géorgie	2005	0.2	...	...	...	...	...	...
	2013 <sup>1,9</sup>	# 0.1 <sup>17</sup>	...	46.7 <sup>18</sup>	36.1 <sup>18</sup>	3.1 <sup>18</sup>	14.7 <sup>18</sup>	0.4 <sup>18</sup>
	2016 <sup>1,2,3</sup>	0.3	...	...	...	...	...	...
Germany Allemagne	2005	2.4	67.6	28.4	...	0.3	3.7	...
	2010	2.7	65.5	30.4	...	0.2	3.9	...
	2015	2.9	65.6	27.9 <sup>4</sup>	...	0.4 <sup>4</sup>	6.2	...
	*2016	2.9	...	...	...	...	...	...
Ghana Ghana	2010	# 0.4	# 0.1	# 68.3	0.3	0.1	31.2	...
Greece Grèce	2005	0.6	31.1	46.8	1.7	1.5	19.0	...
	*2010	0.6	36.5	48.3	2.3	1.0	11.9	...
	2016	1.0	40.2	42.6	2.3	0.4	14.6	...
Greenland Groenland	2004	0.7	...	...	...	...	...	...
Guam Guam	2001	...	...	100.0	...	...	...	...
	2005	0.3	...	...	...	...	...	...
Guatemala <sup>1</sup> Guatemala <sup>1</sup>	2005	~0.0	...	42.1	57.9	...	...	...
	2010	~0.0	...	18.3	30.9	...	50.8	...
	2012	~0.0	...	23.5	27.5	...	49.0	...
	2014	~0.0	...	31.1	68.9	...	...	~0.0
	2015	~0.0	...	27.8	72.2	...	...	...
Honduras Honduras	2004	~0.0	...	...	...	...	...	...
	2015 <sup>1</sup>	# ~0.0	...	82.5	17.5	...	...	~0.0
Hungary Hongrie	2005	0.9	39.4 <sup>4</sup>	49.4 <sup>4</sup>	...	0.3 <sup>4</sup>	10.7 <sup>4</sup>	...
	2010	1.1	47.4	39.3	...	0.9	12.4	...
	2015	1.4	49.7	34.6	...	0.7	15.0	...
	2016	1.2	...	...	...	...	...	...
Iceland Islande	2005	2.7	48.0	40.5	...	0.3	11.2	...
	2009	2.7	47.8	40.2	...	0.6	11.4	...
	2016	2.1	35.0	34.2	4.0	4.5	22.4	...
India Inde	2005	0.8	...	...	...	...	...	...
	2010	0.8	...	...	...	...	...	...
	2015	0.6	...	...	...	...	...	...
Indonesia Indonésie	2001	~0.0 <sup>1</sup>	14.7 <sup>1,12</sup>	84.5	0.2	...	...	0.7
	#2009 <sup>1</sup>	0.1	...	...	...	...	...	...
	2013	0.1	...	...	...	...	...	...
Iran (Islamic Republic of) Iran (Rép. islamique d')	2005	0.6	12.2	76.2	11.6	...	...	...
	2008	0.6	30.9	61.6	7.4	...	...	...
	2010 <sup>2,19</sup>	0.3	...	...	...	...	...	...
	2013	0.3	...	...	...	...	...	...
Iraq Iraq	2010	~0.0 <sup>2,3,17</sup>	...	100.0 <sup>10</sup>	...	...	...	...
	2016	~0.0	1.2	96.0	2.0	0.7	0.1	...
Ireland Irlande	2005	1.2	57.4	32.0	1.7	0.2	8.6	...
	*2010	1.6	52.2	29.4	0.9	0.5	17.0	...
	2015	1.2	48.4	25.9	1.5	0.4	23.8	...
	*2016	1.2	...	...	...	...	...	...

Gross domestic expenditure on research and development (R&D) (*continued*)  
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Israel <sup>4</sup>	2005	4.1	56.2	14.5	2.8	1.8	24.7	...
Israël <sup>4</sup>	2010	3.9	36.2	14.2	1.2	1.1	47.3	...
	2015	4.3	34.3	12.8	0.4	0.9	51.6	...
	*2016	4.3	...	...	...	...	...	...
Italy	2005	1.0	39.7	50.7	0.1	1.6	8.0	...
Italie	2010	1.2	44.7	41.6	0.9	3.1	9.8	...
	2015	1.3	50.0	38.0	1.0	2.7	8.3	...
	*2016	1.3	...	...	...	...	...	...
Jamaica								
Jamaïque	2002	0.1	...	...	...	...	...	...
Japan	2005	3.2	76.1	* 16.8	* 6.1	0.7	0.3	...
Japon	2010	3.1	75.9	* 17.2	* 5.7	0.8	0.4	...
	2016	3.1	78.1	* 15.0	* 5.4	0.7	0.7	...
Jordan	2002	0.3	...	...	...	...	...	...
Jordanie	2008	0.4	...	...	...	...	...	...
	#2016	0.3	...	...	...	...	...	...
Kazakhstan	2005	0.3	39.1	44.5	13.4	1.3	1.5	...
Kazakhstan	2010	0.2	36.6	36.7	17.2	8.9	0.6	...
	2011	0.2	51.6	24.9	16.3	6.9	0.3	...
	2016	0.1	39.6	53.2	...	...	1.5	5.6
Kenya								
Kenya	#2010	0.8	4.3	26.0	19.0	3.5	47.1	...
Kuwait	2003 <sup>13</sup>	0.1 <sup>1</sup>	# 4.4	# 94.7	~0.0	...	0.9	...
Koweït	2004 <sup>13</sup>	0.1 <sup>1</sup>	6.0	93.2	...	...	0.8	...
	2005 <sup>13</sup>	0.1 <sup>1</sup>	7.3	92.3	...	0.4	...	...
	2009 <sup>13</sup>	0.1 <sup>1</sup>	2.3	96.5	...	...	1.2	...
	2010 <sup>13</sup>	0.1 <sup>1</sup>	5.2	94.8	...	~0.0	...	...
	2014 <sup>2,3</sup>	0.4	1.0	90.2	5.5	1.1	...	2.3
Kyrgyzstan	2003	0.2	53.7	45.1	0.1	...	1.1	...
Kirghizistan	2005	0.2	36.4	63.6	...	...	~0.0	...
	2010	0.2	...	...	...	...	...	...
	2016 <sup>2</sup>	0.1	4.7	88.9	0.3	...	1.9	4.2
Lao People's Dem. Rep. <sup>1</sup>	Rép. dém. populaire lao <sup>1</sup>	~0.0	36.0	8.0	2.0	...	54.0	...
Latvia	2005	0.5	34.3	46.0	1.2	...	18.5	...
Lettonie	2010	0.6	38.8	26.4	1.4	...	33.4	...
	2015	0.6	20.0	32.7	2.2	...	45.0	...
	2016	0.4	...	...	...	...	...	...
Lesotho	2004 <sup>1</sup>	0.1	...	...	...	...	...	...
Lesotho	2009 <sup>1</sup>	~0.0	3.4	15.0	2.8	...	...	78.9
	2011 <sup>1</sup>	~0.0 <sup>9</sup>	...	...	44.7 <sup>16</sup>	...	3.4	51.9
	2015 <sup>2,3</sup>	~0.0	0.8	91.1	...	0.3	7.8	...
Lithuania	2005	0.7	20.8	62.7	5.7	0.2	10.5	...
Lituania	2010	0.8	32.4	46.0	1.5	0.2	19.9	...
	2015	1.0	28.5	35.3	1.5	0.3	34.3	...
	2016	0.8	...	...	...	...	...	...
Luxembourg	2005	1.6	79.7	16.6	~0.0	0.1	3.6	...
Luxembourg	2010	1.5	43.5	35.1	0.6	0.1	20.6	...
	2015	1.3	47.1	47.7	1.6	0.2	3.4	...
	*2016	1.2	...	...	...	...	...	...
Madagascar	2005	0.2 <sup>1</sup>	...	89.8 <sup>10</sup>	...	...	10.2	...
Madagascar	2009	0.1 <sup>1</sup>	...	89.4 <sup>10</sup>	...	...	10.6	...
	2010	0.1 <sup>1</sup>	...	# 100.0 <sup>10</sup>	...	...	...	...
	2011	0.1 <sup>1</sup>	...	100.0 <sup>16</sup>	...	...	...	...
	2016 <sup>1,13</sup>	~0.0	...	...	...	...	...	...
Malaysia	2004	0.6	71.2	21.5	6.9	...	0.4	...
Malaisie	2010	1.0	59.6	36.4	3.5	...	0.4	0.1
	2015	1.3	# 49.6	# 35.8	7.0	...	1.7	# 6.0 <sup>5</sup>

Country or area Pays ou zone	Year Année	Expenditure on R&D as a % of GDP Dépenses en R&D en % du PIB	Source of funds (%) / Source de financement (%)							
			Business enterprises Entreprises	Govern- ment Etat	Higher education Enseigne- ment supérieur	Institut. Privées sans but lucratif	Private non- profit		Funds from abroad Fonds de l'étranger	Not specified/ Non précisé
							Institut.	Privées sans but lucratif		
Mali	2007 <sup>1</sup>	0.2 <sup>19</sup>	10.1	40.9	...	...	...	...	49.0	...
Mali	2010	0.6 <sup>3</sup>	...	# 91.2	...	...	...	...	8.8	...
	2015 <sup>3</sup>	0.3	0.9	43.6	0.1	0.3	...	32.7	22.4	
Malta	2005	0.5	# 46.8	# 25.9	0.4	0.1	0.1	26.9	...	
Malte	2010	0.6	52.5	34.4	1.3	0.1	0.1	11.7	...	
	2015	0.8	45.6	32.8	1.1	0.1	0.1	20.4	...	
	*2016	0.6	...	...	...	...	...	...	...	
Mauritius	2005 <sup>7,17</sup>	0.4	...	100.0	...	...	...	...	...	
Maurice	2012 <sup>3</sup>	# 0.2	0.3	72.4	20.7	0.1	0.1	6.4	...	
Mexico	2005	0.4	41.5	49.2	7.3	0.9	0.9	1.1	...	
Mexique	2010	0.5	32.9	62.3	2.8	1.6	1.6	0.5	...	
	*2016	0.5	20.7	67.4	5.0	6.4	6.4	0.6	...	
Monaco <sup>1</sup>	2005	~0.0	...	98.8	...	...	...	...	1.2	
Mongolia	2005	0.2 <sup>1</sup>	10.4	77.8	0.8	...	...	4.4	6.5	
Mongolie	2010 <sup>1</sup>	0.2	7.2	61.1	1.5	...	...	4.2	25.9	
	2016 <sup>1</sup>	0.2	4.9	86.3	3.7	0.8	0.8	2.1	2.1	
Montenegro	2005	0.9	...	...	...	...	...	...	...	
Monténégro	2007	1.1	...	...	...	...	...	...	...	
	2015	0.4	29.9	57.8	6.4	~0.0	~0.0	5.9	...	
Morocco	2003	0.6	12.3	40.3	47.4	...	...	...	...	
Maroc	2010	0.7	29.9	23.1	45.3	...	...	1.7	...	
Mozambique	2002 <sup>7,14</sup>	0.4	...	34.7	...	...	...	65.3	...	
Mozambique	2010	# 0.4 <sup>3</sup>	...	18.8 <sup>10</sup>	...	...	3.0	78.1	...	
	2015	0.3	0.5 <sup>1</sup>	43.5	13.3	...	...	39.9	2.8	
Myanmar <sup>1</sup>	2002	0.2	...	...	...	...	...	...	...	
Myanmar <sup>1</sup>	2010	0.11 <sup>19</sup>	19.8	78.6	...	...	...	1.5	...	
Namibia	2010	0.11 <sup>19</sup>	11.1	63.2	6.0	3.9	3.9	15.8	...	
Namibie	2014 <sup>1</sup>	0.3	...	...	...	...	...	...	...	
Nepal <sup>1,17</sup>	2010	0.3	...	...	...	...	...	...	...	
Netherlands	2005	1.8	46.3	38.8	0.3	2.6	2.6	12.0	...	
Pays-Bas	2009	1.7	45.1	40.9	0.3	2.8	2.8	10.8	...	
	2010	1.7	...	...	...	...	...	...	...	
	2015	2.0	48.6	33.1	0.2	2.6	2.6	15.5	...	
	*2016	2.0	...	...	...	...	...	...	...	
New Zealand	2005	1.1	41.1	43.2	8.9	1.7	1.7	5.2	...	
Nouvelle-Zélande	2009	1.3	39.0	44.7	8.3	2.8	2.8	5.2	...	
	2015	1.3	43.1	37.1	8.5	3.0	3.0	8.2	...	
Nicaragua	2002	~0.0	...	...	...	...	...	...	...	
Nicaragua	2015 <sup>9</sup>	0.1	...	...	...	...	...	...	...	
Nigeria	2007	0.2 <sup>3</sup>	0.2	96.4	0.1	1.7	1.7	1.0	0.6	
North Macedonia	2002	0.2	7.8	76.3	7.3	~0.0	~0.0	8.6	...	
Macédoine du Nord	2005	0.2	...	...	...	...	...	...	...	
	2010	0.2	...	...	...	...	...	...	...	
	2016	0.4	24.1	46.8	23.6	0.4	0.4	5.2	...	
Norway	2005	1.5	46.8	43.6	0.7	0.9	0.9	8.1	...	
Norvège	2009	1.7	43.6	46.8	0.4	1.0	1.0	8.2	...	
	2010	1.6	...	...	...	...	...	...	...	
	2015	1.9	44.2	44.9	0.4	1.2	1.2	9.2	...	
	2016	2.0	...	...	...	...	...	...	...	
Oman	2013	0.2	24.5	48.6	24.4	0.1	~0.0	2.3	...	
Oman	2015	0.2	21.4	55.7	22.8	0.2	0.2	...	...	
Pakistan	2005	0.4 <sup>2,3</sup>	...	87.0	11.9	...	...	0.3	0.8	
Pakistan	2009	0.4 <sup>2,3</sup>	...	84.0	12.1	1.7	1.7	0.9	1.3	
	2015 <sup>2,3</sup>	0.2	...	67.0	25.5	0.3	0.3	2.7	4.6	

Gross domestic expenditure on research and development (R&D) (*continued*)

As a percentage of GDP and by source of funds

Dépenses intérieures brutes de recherche et développement (R-D) (*suite*)

En pourcentage du PIB et répartition par source de financement

Country or area Pays ou zone	Year Année	Expenditure on R&D as a % of GDP Dépenses en R&D en % du PIB	Source of funds (%) / Source de financement (%)					
			Business enterprises Entreprises	Govern- ment Etat	Higher education Enseigne- ment supérieur	Institut. Privées sans but lucratif	Private non- profit	Funds from abroad
							Institut. Privées sans but lucratif	Fonds de l'étranger
Panama	2003	0.3	0.6	25.5	1.8	1.0	71.0	0.1
Panama	2005	0.2	0.4	38.5	1.4	0.7	58.9	...
Panama	2010	0.1	3.4	53.9	6.0	14.0	22.7	~0.0
Panama	2011	0.2	18.9	46.7	5.0	8.7	20.7	~0.0
Panama	2013	0.1	10.8	80.9	8.0	...	0.3	...
Papua New Guinea <sup>3</sup> Papouasie-Nvl-Guinée <sup>3</sup>	2016	~0.0 <sup>1</sup>	4.5	38.7	7.6	0.8	39.7	8.8
Paraguay	2001	0.1	~0.0	43.2	20.6	3.4	32.7	0.0
Paraguay	2005	0.1	# 0.3	# 74.9	# 8.6	# 2.0	# 14.2	...
Paraguay	2008	0.1	0.3	76.2	9.2	2.1	12.3	...
Paraguay	2015 <sup>3</sup>	0.1	0.3	73.1	2.1	4.2	10.3	10.1
Peru	2004	0.2	...	...	...	...	...	...
Pérou	2016	0.1	...	...	...	...	...	...
Philippines	2005	0.1	62.6	25.6	6.0	0.7	4.8	0.3
Philippines	2009	0.1	57.5	26.7	7.8	0.4	4.2	3.4
Philippines	2013	0.1	36.9	51.6	9.0	0.2	1.8	0.5
Poland	2005	0.6	33.4	57.7	2.9	0.3	5.7	...
Pologne	2010	0.7	24.4	60.9	2.5	0.3	11.8	...
Pologne	2015	1.0	39.0	41.8	2.2	0.2	16.7	...
Pologne	*2016	1.0	...	...	...	...	...	...
Portugal	2005	0.8	36.3	55.2	1.0	2.8	4.7	...
Portugal	2010	1.5	43.9	45.1	3.2	4.6	3.2	...
Portugal	2015	1.2	42.7	44.3	4.4	1.3	7.4	...
Portugal	*2016	1.3	...	...	...	...	...	...
Puerto Rico	2009	0.5	...	...	...	...	...	...
Porto Rico	2015	0.4	69.4	23.1	6.6	0.3	...	0.6
Qatar	2015	0.5	7.1	42.6	20.6	27.8	1.9	~0.0
Republic of Korea	2005 <sup>4</sup>	2.6	75.0	23.0	0.9	0.4	0.7	...
République de Corée	2010	3.5	71.8	26.7	0.9	0.4	0.2	...
République de Corée	2016	4.2	75.4	22.7	0.6	0.3	0.9	...
Republic of Moldova	2005	0.4	...	...	...	...	3.8	96.2 <sup>5</sup>
République de Moldova	2010	0.4	...	...	...	...	7.4	92.6 <sup>5</sup>
République de Moldova	2016	0.3	...	...	...	...	4.2	95.8 <sup>5</sup>
Romania	2005	0.4	37.2	53.5	4.0	~0.0	5.3	...
Roumanie	2010	0.5	32.3	54.4	2.2	~0.0	11.1	...
Roumanie	2015	0.5	37.3	41.7	1.7	0.1	19.2	...
Roumanie	2016	0.5	...	...	...	...	...	...
Russian Federation	2005	1.1	30.0	61.9	0.4	~0.0	7.6	...
Fédération de Russie	2010	1.1	25.5	70.3	0.5	0.1	3.5	...
Fédération de Russie	2016	1.1	28.1	68.2	0.9	0.2	2.7	...
Saint Vincent & Grenadines	2002	0.1	...	...	...	...	...	...
Saint-Vincent-Grenadines	2005	~0.0	...	...	...	...	...	...
Saudi Arabia <sup>17</sup>	2005 <sup>1</sup>	~0.0	...	...	...	...	...	...
Arabie saoudite <sup>17</sup>	#2010 <sup>7</sup>	0.9	...	...	...	...	...	...
Arabie saoudite <sup>17</sup>	2013 <sup>7</sup>	0.8	...	...	...	...	...	...
Senegal	2010	0.5	4.1	47.6	~0.0	3.2	40.5	4.5
Sénégal	2015 <sup>3</sup>	0.8	2.1	85.4	0.1	4.5	7.9	...
Serbia	2005 <sup>4,20</sup>	0.4	...	...	...	...	...	...
Serbie	2010	0.7 <sup>20</sup>	8.6	59.4	28.4	~0.0	3.6	...
Serbie	2016	0.9 <sup>20</sup>	9.2	45.6	32.3	~0.0	13.0	...
Seychelles	2005	0.3	...	...	...	...	...	...
Seychelles	2016	# 0.2	2.0 <sup>3</sup>	56.1 <sup>3</sup>	4.5 <sup>3</sup>	3.2 <sup>3</sup>	33.9 <sup>3</sup>	0.3 <sup>3</sup>
Singapore	2005	2.2	58.8	36.4	0.5	...	4.4	...
Singapour	2010	2.0	53.1	40.2	1.8	...	4.9	...
Singapour	2014	2.2	54.1	37.1	2.0	...	6.8	...

Country or area Pays ou zone	Year Année	Expenditure on R&D as a % of GDP Dépenses en R&D en % du PIB	Source of funds (%) / Source de financement (%)					
			Business enterprises Entreprises	Govern- ment Etat	Higher education Enseigne- ment supérieur	Institut. Privées sans but lucratif	Private non- profit	Funds from abroad
							Institut. Privées sans but lucratif	Fonds de l'étranger
Slovakia	2005	0.5	36.6	* 57.0	0.3	~0.0	6.0	...
Slovaquie	2010	0.6	35.1	* 49.6	0.4	0.3	14.7	...
	2015	1.2	25.1	31.9	3.3	0.3	39.4	...
	2016	0.8	...	...	...	...	...	...
Slovenia	2005	1.4	54.8	37.2	0.7	~0.0	7.3	...
Slovénie	2010	2.1	58.4	35.3	0.3	0.1	6.0	...
	2015	2.2	69.2	19.9	0.3	~0.0	10.6	...
	*2016	2.0	...	...	...	...	...	...
South Africa	2005	0.9	43.9	38.2	3.0	1.4	13.6	...
Afrique du Sud	2010	0.7	40.1	44.5	0.1	3.2	12.1	...
	2015	0.8	38.9	44.6	0.1	3.3	13.0	...
Spain	2005	1.1	46.3	43.0	4.1	0.9	5.7	...
Espagne	2010	1.3	43.0	46.6	3.9	0.7	5.7	...
	2015	1.2	45.8	40.9	4.3	0.9	8.0	...
	2016	1.2	...	...	...	...	...	...
Sri Lanka	#2000 <sup>1</sup>	0.1	7.7	51.7	18.5	~0.0	4.5	17.5
Sri Lanka	#2004	0.2	0.6 <sup>12</sup>	67.5 <sup>10</sup>	...	...	22.6	9.3
	2010	0.1	# 40.9	55.9	0.2	~0.0	2.7	0.3
	2014	0.1	41.2	56.2	...	...	2.1	0.5
State of Palestine <sup>3</sup>	2010	0.4	0.9	21.3	2.3	4.9	52.4	18.2
État de Palestine <sup>3</sup>	2013	0.5	3.8	29.4	4.6	17.1	24.2	21.1
Sudan <sup>7</sup>	Soudan <sup>7</sup>	2005	0.3	...	...	...	...	...
Sweden	#2005	3.4	63.9	24.4	0.7	2.9	8.1	...
Suède	2009	3.4	59.5	27.0	0.6	2.6	10.3	...
	*2010	3.2	...	...	...	...	...	...
	*2013	3.3	61.0	28.3	1.0	3.1	6.7	...
	2015	3.3	57.3	...	0.9	3.3	...	...
	*2016	3.3	...	...	...	...	...	...
Switzerland	2004	2.7	69.7	22.7	1.5	0.8	5.2	...
Suisse	2008	2.7	68.2	22.8	2.3	0.7	6.0	...
	2015	3.4	63.5	24.4	1.5	0.5	10.2	...
Tajikistan	2001	0.1	0.6	97.3	...	...	0.2	1.9
Tadjikistan	2005	0.1	2.2 <sup>18</sup>	91.5 <sup>18</sup>	0.3 <sup>18</sup>	...	...	5.5 <sup>18</sup>
	2006	0.1	0.2 <sup>18</sup>	76.3 <sup>18</sup>	0.2 <sup>18</sup>	...	0.6 <sup>18</sup>	19.9 <sup>18</sup>
	2010	0.1 <sup>2,3</sup>	1.9 <sup>18</sup>	76.2 <sup>18</sup>	0.4 <sup>18</sup>	...	...	19.7 <sup>18</sup>
	2011	0.1 <sup>2,3</sup>	1.6 <sup>18</sup>	82.1 <sup>18</sup>	0.1 <sup>18</sup>	...	...	15.1 <sup>18</sup>
	2013	0.1 <sup>2,3</sup>	...	92.5	0.2	...	0.2	7.1
	2016 <sup>2,3</sup>	0.1	...	100.0	...	...	...	...
Thailand	2005	0.2	48.7	31.5	14.9	0.7	1.8	2.4
Thaïlande	2009	0.2	41.4	37.9	17.8	0.3	1.0	1.6
	2015	0.6	66.2	20.5	5.5	0.1	1.5	6.0
Togo	2010	0.3 <sup>3</sup>	...	88.3	...	...	11.7	...
Togo	2012	0.2 <sup>3</sup>	...	84.9	...	3.1	12.1	...
	2014 <sup>3</sup>	0.3 <sup>2</sup>	...	94.5	...	...	5.5	...
Trinidad and Tobago	2005	0.1	...	...	...	...	...	...
Trinité-et-Tobago	2010	~0.0	...	...	...	...	...	...
	2015	0.1	...	...	...	...	...	...
Tunisia	2005	0.7	14.4	79.2	...	...	6.4	...
Tunisie	2010	0.7	17.1	78.1	...	...	4.8	...
	2015	0.6	18.9	77.1	...	...	3.9	...
	2016	0.6	...	...	...	...	...	...
Turkey	2005	0.6	43.3 <sup>4</sup>	50.1 <sup>4</sup>	...	5.8 <sup>4</sup>	0.8	...
Turquie	2010	0.8	45.1	30.8	19.6	3.7	0.8	...
	2015	0.9	50.1	27.6	18.1	3.2	1.1	...

Country or area Pays ou zone	Year Année	Expenditure on R&D as a % of GDP Dépenses en R&D en % du PIB	Source of funds (%) / Source de financement (%)							
			Business enterprises Entreprises	Govern- ment Etat	Higher education Enseigne- ment supérieur	Institut. Privées sans but lucratif	Private non- profit		Funds from abroad Fonds de l'étranger	Not specified/ Non précisé
							Private Institut.	Funds from abroad Fonds de l'étranger		
Uganda	2002	0.4	1.3	33.8	1.3	...	...	63.6	...	
Ouganda	2005	0.2	1.7	41.5	...	...	...	56.9	...	
	2010	0.5	13.7	21.9	1.0	6.0	57.3	...	...	
	2014	# 0.2	# 3.4	37.9	2.3	3.3	52.4	0.7	...	
Ukraine	2005	1.0	# 32.3	# 40.1	# 0.1	# 0.4	# 24.4	# 2.8	...	
Ukraine	2010	0.8	26.2	46.7	0.2	0.1	25.7	1.1	...	
	#2016	0.5 <sup>20</sup>	36.9	39.3	0.2	~0.0	22.1	1.6	...	
United Arab Emirates	2014	0.7	74.3 <sup>21</sup>	25.7 <sup>13</sup>	...	...	...	...	...	
Émirats arabes unis	2016	1.0	...	...	...	...	...	...	...	
United Kingdom	2005	1.6	42.1	32.7	1.2	4.7	19.3	...	...	
Royaume-Uni	*2010	1.7	44.0	32.3	1.2	4.8	17.6	...	...	
	2015	1.7	49.0	27.7	1.4	4.9	17.1	...	...	
	*2016	1.7	...	...	...	...	...	...	...	
United Rep. of Tanzania	2010	0.4 <sup>1,3</sup>	0.1	57.5	0.3	0.1	42.0	...	...	
Rép.-Unie de Tanzanie	2013 <sup>3</sup>	0.5	...	...	...	...	...	...	...	
United States of America	2005 <sup>4</sup>	2.5	63.3	30.8	2.8	3.1	...	...	...	
États-Unis d'Amérique	2010	2.7 <sup>4</sup>	56.9 <sup>4</sup>	32.6 <sup>4</sup>	3.0 <sup>4</sup>	3.8 <sup>4</sup>	3.7	...	...	
	2016	* 2.7 <sup>4</sup>	62.3 <sup>4</sup>	* 25.1 <sup>4</sup>	* 3.7 <sup>4</sup>	* 3.8 <sup>4</sup>	* 5.2	...	...	
United States Virgin Islands <sup>1</sup>	2002	0.1	...	70.8	28.0	1.2	...	...	...	
Îles Vierges américaines <sup>1</sup>	2005	~0.0	...	100.0	...	...	...	...	...	
	2007	~0.0	...	100.0	...	...	...	...	...	
Uruguay	2000	0.2	39.3	20.3	35.7	...	4.8	~0.0	...	
Uruguay	2002	0.2	46.7	17.1	31.4	0.1	4.7	...	...	
	2010	0.3	47.1	22.9	26.6	0.9	1.7	0.8	...	
	2011	0.3	8.5	30.8	45.2	0.1	6.5	8.9	...	
	2015	0.4	4.6	28.6	59.2	0.3	7.4	...	...	
Uzbekistan	2005	0.2	52.7	43.1 <sup>10</sup>	...	...	0.6	3.6	...	
Ouzbékistan	2010	0.2	35.1	57.8 <sup>10</sup>	...	...	2.4	4.7	...	
	2016	0.2	40.2	56.3 <sup>10</sup>	...	...	0.8	2.7	...	
Venezuela (Boliv. Rep. of)	2005	0.2	...	...	...	...	...	...	...	
Venezuela (Rép. boliv. du)	2010	0.2	...	...	...	...	...	...	...	
	2015	0.2	...	...	...	...	...	...	...	
Viet Nam	2002	0.2	18.1	74.1	0.7 <sup>12</sup>	...	6.3	0.8	...	
Viet Nam	2015	0.4	58.1	33.0	0.9	...	2.9	5.0	...	
Zambia	2005 <sup>1</sup>	~0.0	...	...	...	...	...	...	...	
Zambie	#2008	0.3	3.2	94.8	...	0.3	1.6	...	...	

Source:

United Nations Educational, Scientific and Cultural Organization (UNESCO), Montreal, the UNESCO Institute for Statistics (UIS) statistics database, last accessed September 2018.

Source:

Organisation des Nations Unies pour l'éducation, la science et la culture (UNESCO), Montréal, base de données statistiques de l'Institut de statistique (ISU) de l'UNESCO, dernier accès septembre 2018.

1 Partial data.

2 Excluding private non-profit.

3 Excluding business enterprise.

4 Do not correspond exactly to Frascati Manual recommendations.

5 Including other classes.

6 Data have been converted from the former national currency using the appropriate conversion rate.

7 Overestimated or based on overestimated data.

8 Excluding most or all capital expenditures.

9 Higher Education only.

10 Including higher education.

1 Données partielles.

2 Non compris les organisations privées à but non lucratif.

3 Ne comprend pas les entreprises commerciales.

4 Ne corresponds pas exactement aux recommandations du Manuel de Frascati.

5 Comprend d'autres catégories.

6 Les données ont été converties à partir de l'ancienne monnaie nationale et du taux de conversion approprié.

7 Surestimé ou fondé sur des données surestimées.

8 Exclut toutes ou presque toutes des dépenses en capital.

9 Enseignement supérieur seulement.

10 Y compris l'enseignement supérieur.

Dépenses intérieures brutes de recherche et développement (R-D) (*suite*)  
En pourcentage du PIB et répartition par source de financement

- |    |  |    |   |
|----|--|----|---|
| 11 | For statistical purposes, the data for China do not include those for the Hong Kong Special Administrative Region (Hong Kong SAR), Macao Special Administrative Region (Macao SAR) and Taiwan Province of China. | 11 | Pour la présentation des statistiques, les données pour la Chine ne comprennent pas la région administrative spéciale de Hong Kong (RAS de Hong Kong), la région administrative spéciale de Macao (RAS de Macao) et la province chinoise de Taïwan. |
| 12 | Including private non-profit.  | 12 | Y compris les fonds privés à but non lucratif.  |
| 13 | Government only.   | 13 | Etat seulement.   |
| 14 | S&T budget instead of R&D expenditure.   | 14 | Budget pour la science et technologie au lieu des dépenses de recherche et développement.   |
| 15 | Including business enterprise.   | 15 | Y compris les fonds d'entreprises.  |
| 16 | Including Government.  | 16 | Y compris l'état.   |
| 17 | Based on R&D budget instead of R&D expenditure.  | 17 | Basé sur le budget de la recherche-développement au lieu des dépenses.  |
| 18 | The sum of the breakdown does not add to the total.  | 18 | La somme de toutes les valeurs diffère du total.  |
| 19 | Excluding government.  | 19 | Non compris l'état.   |
| 20 | Excluding data from some regions, provinces or states.   | 20 | Non compris les données de certaines régions, provinces ou états.   |
| 21 | Business enterprise only.  | 21 | Les entreprises commerciales seulement.   |