

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$	GDP per capita, PPP\$	GII 2018 rank
<b>62</b>	<b>43</b>	<b>High</b>	<b>LCN</b>	<b>18.2</b>	<b>481.0</b>	<b>25,978.3</b>	<b>47</b>
<b>INSTITUTIONS</b> ..... <b>73.0</b> <b>39</b>				<b>BUSINESS SOPHISTICATION</b> ..... <b>33.1</b> <b>53</b>			
<b>1.1</b>	<b>Political environment</b> .....	<b>71.7</b>	<b>37</b>	<b>5.1</b>	<b>Knowledge workers</b> .....	<b>44.4</b>	<b>47</b>
1.1.1	Political and operational stability*	80.7	35	5.1.1	Knowledge-intensive employment, %	26.4	53
1.1.2	Government effectiveness*	67.2	36	5.1.2	Firms offering formal training, % firms	57.5	10
<b>1.2</b>	<b>Regulatory environment</b> .....	<b>72.9</b>	<b>41</b>	5.1.3	GERD performed by business, % GDP	0.1	57
1.2.1	Regulatory quality*	77.8	21	5.1.4	GERD financed by business, %	35.8	52
1.2.2	Rule of law*	73.1	29	5.1.5	Females employed w/advanced degrees, %	8.8	75
1.2.3	Cost of redundancy dismissal, salary weeks	27.4	107	<b>5.2</b>	<b>Innovation linkages</b> .....	<b>18.7</b>	<b>96</b>
<b>1.3</b>	<b>Business environment</b> .....	<b>74.5</b>	<b>50</b>	5.2.1	University/industry research collaboration*	43.8	55
1.3.1	Ease of starting a business*	89.1	58	5.2.2	State of cluster development*	44.1	77
1.3.2	Ease of resolving insolvency*	59.9	46	5.2.3	GERD financed by abroad, %	1.9	77
<b>HUMAN CAPITAL &amp; RESEARCH</b> .....	<b>32.5</b>	<b>57</b>	<b>5.3</b>	<b>Knowledge absorption</b> .....	<b>36.3</b>	<b>49</b>	
<b>2.1</b>	<b>Education</b> .....	<b>49.8</b>	<b>60</b>	5.3.1	Intellectual property payments, % total trade	2.2	12
2.1.1	Expenditure on education, % GDP	5.4	30	5.3.2	High-tech imports, % total trade	8.5	50
2.1.2	Government funding/pupil, secondary, % GDP/cap	18.2	59	5.3.3	ICT services imports, % total trade	0.7	88
2.1.3	School life expectancy, years	16.5	20	5.3.4	FDI net inflows, % GDP	5.3	28
2.1.4	PISA scales in reading, maths, & science	442.7	44	5.3.5	Research talent, % in business enterprise	29.5	42
2.1.5	Pupil-teacher ratio, secondary	18.4	79	<b>KNOWLEDGE &amp; TECHNOLOGY OUTPUTS</b> ....	<b>22.9</b>	<b>61</b>	
<b>2.2</b>	<b>Tertiary education</b> .....	<b>34.3</b>	<b>56</b>	<b>6.1</b>	<b>Knowledge creation</b> .....	<b>14.6</b>	<b>56</b>
2.2.1	Tertiary enrolment, % gross	91.5	5	6.1.1	Patents by origin/bn PPP\$ GDP	0.9	64
2.2.2	Graduates in science & engineering, %	20.5	62	6.1.2	PCT patents by origin/bn PPP\$ GDP	0.5	35
2.2.3	Tertiary inbound mobility, %	0.4	100	6.1.3	Utility models by origin/bn PPP\$ GDP	0.2	41
<b>2.3</b>	<b>Research &amp; development (R&amp;D)</b> .....	<b>13.3</b>	<b>49</b>	6.1.4	Scientific & technical articles/bn PPP\$ GDP	13.2	40
2.3.1	Researchers, FTE/mn pop.	502.1	67	6.1.5	Citable documents H-index	22.5	37
2.3.2	Gross expenditure on R&D, % GDP	0.4	71	<b>6.2</b>	<b>Knowledge impact</b> .....	<b>38.3</b>	<b>56</b>
2.3.3	Global R&D companies, avg. exp. top 3, mn US\$	0.0	43	6.2.1	Growth rate of PPP\$ GDP/worker, %	0.7	67
2.3.4	QS university ranking, average score top 3*	39.5	32	6.2.2	New businesses/th pop. 15-64	8.9	15
<b>INFRASTRUCTURE</b> .....	<b>51.0</b>	<b>50</b>	<b>6.2.3</b>	<b>Knowledge diffusion</b> .....	<b>15.8</b>	<b>74</b>	
<b>3.1</b>	<b>Information &amp; communication technologies (ICTs)</b>	<b>76.1</b>	<b>41</b>	6.2.4	Intellectual property receipts, % total trade	0.1	65
3.1.1	ICT access*	72.8	57	6.2.5	High-tech net exports, % total trade	0.8	72
3.1.2	ICT use*	66.3	41	6.3.3	ICT services exports, % total trade	0.5	102
3.1.3	Government's online service*	83.3	37	6.3.4	FDI net outflows, % GDP	3.8	16
3.1.4	E-participation*	82.0	46	<b>CREATIVE OUTPUTS</b> .....	<b>27.2</b>	<b>66</b>	
<b>3.2</b>	<b>General infrastructure</b> .....	<b>36.5</b>	<b>59</b>	<b>7.1</b>	<b>Intangible assets</b> .....	<b>45.4</b>	<b>48</b>
3.2.1	Electricity output, kWh/mn pop.	4,262.7	51	7.1.1	Trademarks by origin/bn PPP\$ GDP	70.2	28
3.2.2	Logistics performance*	58.6	33	7.1.2	Industrial designs by origin/bn PPP\$ GDP	0.2	105
3.2.3	Gross capital formation, % GDP	22.4	71	7.1.3	ICTs & business model creation*	72.1	28
<b>3.3</b>	<b>Ecological sustainability</b> .....	<b>40.3</b>	<b>53</b>	7.1.4	ICTs & organizational model creation*	57.8	54
3.3.1	GDP/unit of energy use	10.1	49	<b>7.2</b>	<b>Creative goods &amp; services</b> .....	<b>10.9</b>	<b>80</b>
3.3.2	Environmental performance*	57.5	73	7.2.1	Cultural & creative services exports, % total trade	0.3	65
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP	3.1	31	7.2.2	National feature films/mn pop. 15-69	3.7	49
<b>MARKET SOPHISTICATION</b> .....	<b>51.7</b>	<b>49</b>	<b>7.2.3</b>	<b>Credit</b> .....	<b>41.4</b>	<b>51</b>	
<b>4.1</b>	<b>Credit</b> .....	<b>41.4</b>	<b>51</b>	7.2.4	Ease of getting credit*	55.0	77
4.1.1	Ease of getting credit*	55.0	77	7.2.5	Domestic credit to private sector, % GDP	112.6	19
4.1.2	Domestic credit to private sector, % GDP	112.6	19	<b>7.3</b>	<b>Online creativity</b> .....	<b>6.9</b>	<b>58</b>
4.1.3	Microfinance gross loans, % GDP	0.9	21	7.3.1	Generic top-level domains (TLDs)/th pop. 15-69	2.2	76
<b>4.2</b>	<b>Investment</b> .....	<b>40.3</b>	<b>71</b>	7.3.2	Country-code TLDs/th pop. 15-69	12.2	37
4.2.1	Ease of protecting minority investors*	60.0	61	7.3.3	Wikipedia edits/mn pop. 15-69	16.2	56
4.2.2	Market capitalization, % GDP	89.8	15	7.3.4	Mobile app creation/bn PPP\$ GDP	2.4	61
4.2.3	Venture capital deals/bn PPP\$ GDP	0.0	53	<b>4.3</b>	<b>Trade, competition, &amp; market scale</b> .....	<b>73.3</b>	<b>24</b>
4.3.1	Applied tariff rate, weighted avg., %	0.5	4	4.3.1	Applied tariff rate, weighted avg., %	0.5	4
4.3.2	Intensity of local competition*	74.5	30	4.3.2	Intensity of local competition*	74.5	30
4.3.3	Domestic market scale, bn PPP\$	481.0	42	4.3.3	Domestic market scale, bn PPP\$	481.0	42

NOTES: ● indicates a strength; ○ a weakness; ◆ an income group strength; ◇ an income group weakness; \* an index; † a survey question. ⊕ indicates that the economy's data are older than the base year; see Appendix II for details, including the year of the data, at <http://globalinnovationindex.org>. Square brackets [ ] indicate that the data minimum coverage (DMC) requirements were not met at the sub-pillar or pillar level.