

Turkey

Key indicators

Population (millions)	78.7
GDP (US\$ billions)	733.6
GDP per capita, PPP\$	20,437.8
Income group	Upper-middle income
Region	Northern Africa and Western Asia

	Score 0–100 or value (hard data)	Rank
Global Innovation Index (out of 128)	39.0	42
Innovation Output Sub-Index	35.5	37
Innovation Input Sub-Index	42.5	59
Innovation Efficiency Ratio	0.8	13 ●
Global Innovation Index 2015 (out of 141)	37.8	58

1 Institutions	54.6	82
1.1 Political environment	43.1	88
1.1.1 Political stability & safety*	36.5	116 ○
1.1.2 Government effectiveness*	49.6	47
1.2 Regulatory environment	54.2	96
1.2.1 Regulatory quality*	54.8	54
1.2.2 Rule of law*	48.0	59
1.2.3 Cost of redundancy dismissal, salary weeks	29.8	115 ○
1.3 Business environment	66.6	74
1.3.1 Ease of starting a business*	85.2	72
1.3.2 Ease of resolving insolvency*	35.1	104 ○
1.3.3 Ease of paying taxes*	79.4	51

2 Human capital & research	39.2	43
2.1 Education	50.0	57
2.1.1 Expenditure on education, % GDP ^②	2.9	103 ○
2.1.2 Gov't expenditure/pupil, secondary, % GDP/cap	n/a	n/a
2.1.3 School life expectancy, years	16.4	24
2.1.4 PISA scales in reading, maths, & science	462.3	40
2.1.5 Pupil-teacher ratio, secondary ^②	20.1	84
2.2 Tertiary education	39.1	49
2.2.1 Tertiary enrolment, % gross	79.0	16 ●
2.2.2 Graduates in science & engineering, % ^②	20.9	49
2.2.3 Tertiary inbound mobility, %	1.1	79
2.3 Research & development (R&D)	28.6	38
2.3.1 Researchers, FTE/mn pop.	1,156.5	45
2.3.2 Gross expenditure on R&D, % GDP	1.0	35
2.3.3 Global R&D companies, avg. expend. top 3, mn \$US	50.8	36
2.3.4 QS university ranking, average score top 3*	33.5	39

3 Infrastructure	43.6	62
3.1 Information & communication technologies (ICTs)	50.7	63
3.1.1 ICT access*	60.0	66
3.1.2 ICT use*	37.7	66
3.1.3 Government's online service*	55.9	53
3.1.4 E-participation*	49.0	64
3.2 General infrastructure	38.2	60
3.2.1 Electricity output, kWh/cap	3,265.5	59
3.2.2 Logistics performance*	3.5	29
3.2.3 Gross capital formation, % GDP	20.6	78
3.3 Ecological sustainability	42.1	66
3.3.1 GDP/unit of energy use, 2005 PPP\$/kg oil eq	9.1	43
3.3.2 Environmental performance*	67.7	86
3.3.3 ISO 14001 environmental certificates/bn PPP\$ GDP	1.5	52

4 Market sophistication	47.7	46
4.1 Credit	26.2	91
4.1.1 Ease of getting credit*	50.0	69
4.1.2 Domestic credit to private sector, % GDP	74.6	39
4.1.3 Microfinance gross loans, % GDP ^②	0.0	79 ○

4.2 Investment	38.6	56
4.2.1 Ease of protecting minority investors*	68.3	20 ●
4.2.2 Market capitalization, % GDP	27.5	53
4.2.3 Total value of stocks traded, % GDP	46.3	16 ●
4.2.4 Venture capital deals/bn PPP\$ GDP	0.0	64

4.3 Trade, competition, & market scale	78.3	12 ●
4.3.1 Applied tariff rate, weighted mean, %	2.8	58
4.3.2 Intensity of local competition [†]	81.2	9 ●
4.3.3 Domestic market scale, bn PPP\$	1,514.9	17 ●

5 Business sophistication

5.1 Knowledge workers	32.8	83
5.1.1 Knowledge-intensive employment, %	19.7	71
5.1.2 Firms offering formal training, % firms	28.4	61
5.1.3 GERD performed by business, % of GDP	0.5	36
5.1.4 GERD financed by business, %	50.9	20
5.1.5 Females employed w/advanced degrees, % total	7.4	72 ○

5.2 Innovation linkages	22.9	93
5.2.1 University/industry research collaboration [†]	44.8	59
5.2.2 State of cluster development [†]	48.6	50
5.2.3 GERD financed by abroad, %	1.1	87 ○
5.2.4 JV-strategic alliance deals/bn PPP\$ GDP	0.0	56
5.2.5 Patent families 2+ offices/bn PPP\$ GDP	0.3	39

5.3 Knowledge absorption	27.0	72
5.3.1 Intellectual property payments, % total trade	0.3	72
5.3.2 High-tech imports less re-imports, % total trade	8.9	49
5.3.3 ICT services imports, % total trade	0.1	118 ○
5.3.4 FDI net inflows, % GDP	1.6	89
5.3.5 Research talent, % in business enterprise	46.7	26

6 Knowledge & technology outputs

6.1 Knowledge creation	27.0	35
6.1.1 Patents by origin/bn PPP\$ GDP	3.4	33
6.1.2 PCT patent applications/bn PPP\$ GDP	0.6	30
6.1.3 Utility models by origin/bn PPP\$ GDP	2.3	11 ●
6.1.4 Scientific & technical articles/bn PPP\$ GDP	16.8	44
6.1.5 Citable documents H index	266.0	36

6.2 Knowledge impact	38.6	53
6.2.1 Growth rate of PPP\$ GDP/worker, %	1.2	58
6.2.2 New businesses/th pop. 15–64	1.1	64
6.2.3 Computer software spending, % GDP	0.6	9 ●
6.2.4 ISO 9001 quality certificates/bn PPP\$ GDP	5.9	55
6.2.5 High- & medium-high-tech manufactures, % ^②	28.2	43

6.3 Knowledge diffusion	21.7	81
6.3.1 Intellectual property receipts, % total trade	n/a	n/a
6.3.2 High-tech exports less re-exports, % total trade	1.2	62
6.3.3 ICT services exports, % total trade	0.1	116 ○
6.3.4 FDI net outflows, % GDP	0.9	50

7 Creative outputs

7.1 Intangible assets	67.5	5 ●
7.1.1 Trademarks by origin/bn PPP\$ GDP	131.2	4 ●
7.1.2 Industrial designs by origin/bn PPP\$ GDP	27.2	1 ●
7.1.3 ICTs & business model creation [†]	61.2	51
7.1.4 ICTs & organizational model creation [†]	52.0	68

7.2 Creative goods & services	23.0	63
7.2.1 Cultural & creative services exports, % of total trade	0.0	72 ○
7.2.2 National feature films/mn pop. 15–69	1.6	60
7.2.3 Global ent. & media market/th pop. 15–69	5.5	42
7.2.4 Printing & publishing manufactures, % ^②	1.1	57
7.2.5 Creative goods exports, % total trade	3.0	14 ●

7.3 Online creativity	9.8	62
7.3.1 Generic top-level domains (TLDs)/th pop. 15–69	13.2	35
7.3.2 Country-code TLDs/th pop. 15–69	2.5	65
7.3.3 Wikipedia edits/mn pop. 15–69	793.9	81
7.3.4 Video uploads on YouTube/pop. 15–69	17.9	56

NOTES: ● indicates a strength; ○ a weakness; * an index; † a survey question.

② indicates that the country's data are older than the base year; see Appendix II for details, including the year of the data.

Square brackets indicate a top 10 or 100 or below sub-pillar ranking in the presence of a relevant number of missing variables; see page 172 of this appendix for details.