

Romania

Key indicators

Population (millions)	22.1
GDP (US\$ billions)	171.4
GDP per capita, PPP\$	12,838.4
Income group	Upper-middle income
Region	Europe

	Score (0–100) or value (hard data)	Rank
Global Innovation Index (out of 142).....	40.3	48
Innovation Output Sub-Index	37.8	40
Innovation Input Sub-Index	42.8	55
Innovation Efficiency Ratio	0.9	34
Global Innovation Index 2012 (based on GII 2012 framework)	37.8	52

1 Institutions.....66.3 55

1.1 Political environment.....	59.5	60
1.1.1 Political stability*.....	69.1	63
1.1.2 Government effectiveness*.....	32.4	83
1.1.3 Press freedom*.....	77.0	37
1.2 Regulatory environment	79.2	36
1.2.1 Regulatory quality*	68.4	39
1.2.2 Rule of law*.....	48.4	58
1.2.3 Cost of redundancy dismissal, salary weeks	8.0	1 ●
1.3 Business environment.....	60.1	85
1.3.1 Ease of starting a business*	88.8	39
1.3.2 Ease of resolving insolvency*.....	31.7	92
1.3.3 Ease of paying taxes*.....	59.8	100

2 Human capital & research.....29.5 78

2.1 Education	51.0	79
2.1.1 Current expenditure on education, % GNI.....	3.7	77
2.1.2 Public expenditure/pupil, % GDP/cap.....	20.5	52
2.1.3 School life expectancy, years.....	14.5	43
2.1.4 PISA scales in reading, maths, & science.....	426.6	47
2.1.5 Pupil-teacher ratio, secondary	12.5	48
2.2 Tertiary education.....	30.3	71
2.2.1 Tertiary enrolment, % gross.....	58.8	37
2.2.2 Graduates in science & engineering, %	17.1	62
2.2.3 Tertiary inbound mobility, %.....	1.3	74
2.2.4 Gross tertiary outbound enrolment, %	1.5	64
2.3 Research & development (R&D).....	7.4	72
2.3.1 Researchers, headcounts/mn pop.	1,429.1	45
2.3.2 Gross expenditure on R&D, % GDP.....	0.5	58
2.3.3 QS university ranking, average score top 3*.....	0.0	68 ○

3 Infrastructure.....42.8 35

3.1 Information & communication technologies (ICTs).....	36.6	67
3.1.1 ICT access*.....	57.5	52
3.1.2 ICT use*.....	29.4	53
3.1.3 Government's online service*.....	51.6	61
3.1.4 E-participation*.....	7.9	99 ○
3.2 General infrastructure.....	32.2	56
3.2.1 Electricity output, kWh/cap.....	2,810.6	66
3.2.2 Electricity consumption, kWh/cap.....	2,391.9	66
3.2.3 Logistics performance*.....	50.0	53
3.2.4 Gross capital formation, % GDP.....	28.9	25 ●
3.3 Ecological sustainability	59.5	8 ●
3.3.1 GDP/unit of energy use, 2000 PPP\$/kg oil eq	6.7	55
3.3.2 Environmental performance*.....	48.3	85
3.3.3 ISO 14001 environmental certificates/bn PPP\$ GDP.....	35.8	1 ●

4 Market sophistication.....43.7 85

4.1 Credit.....	36.4	71
4.1.1 Ease of getting credit*	87.5	12 ●
4.1.2 Domestic credit to private sector, % GDP.....	45.2	73
4.1.3 Microfinance gross loans, % GDP	0.2	60

4.2 Investment	20.8	93
4.2.1 Ease of protecting investors*.....	61.9	42
4.2.2 Market capitalization, % GDP.....	11.8	88 ○
4.2.3 Total value of stocks traded, % GDP.....	1.8	64
4.2.4 Venture capital deals/tr PPP\$ GDP.....	0.0	63
4.3 Trade & competition	73.9	89
4.3.1 Applied tariff rate, weighted mean, %.....	1.6	11
4.3.2 Non-agricultural mkt access weighted tariff, %.....	2.3	102 ○
4.3.3 Intensity of local competition†.....	55.1	99

5 Business sophistication.....31.8 70

5.1 Knowledge workers.....	40.6	80
5.1.1 Knowledge-intensive employment, %.....	21.8	56
5.1.2 Firms offering formal training, % firms.....	24.9	78
5.1.3 R&D performed by business, % GDP.....	0.2	48
5.1.4 R&D financed by business, %	37.4	45
5.1.5 GMAT mean score.....	572.3	22 ●
5.1.6 GMAT test takers/mn pop. 20–34.....	88.0	58
5.2 Innovation linkages	19.2	108 ○
5.2.1 University/industry research collaboration†	34.7	110 ○
5.2.2 State of cluster development†	35.3	111 ○
5.2.3 R&D financed by abroad, %.....	12.1	31
5.2.4 JV–strategic alliance deals/tr PPP\$ GDP	0.0	108 ○
5.2.5 Patent families filed in 3+ offices/bn PPP\$ GDP	0.0	54
5.3 Knowledge absorption.....	35.6	36
5.3.1 Royalty & license fees payments, % service imports.....	4.5	30
5.3.2 High-tech imports less re-imports, %	10.8	42
5.3.3 Comm., computer & info. services imports, %.....	9.7	10 ●
5.3.4 FDI net inflows, % GDP.....	1.4	113 ○

6 Knowledge & technology outputs.....40.3 23 ●

6.1 Knowledge creation.....	13.5	63
6.1.1 Domestic resident patent ap/bn PPP\$ GDP.....	5.4	32
6.1.2 PCT resident patent ap/bn PPP\$ GDP.....	0.1	75
6.1.3 Domestic res utility model ap/bn PPP\$ GDP.....	0.2	46
6.1.4 Scientific & technical articles/bn PPP\$ GDP.....	24.6	38
6.1.5 Citable documents H index.....	126.0	45
6.2 Knowledge impact.....	52.6	13 ●
6.2.1 Growth rate of PPP\$ GDP/worker, %.....	1.5	71
6.2.2 New businesses/th pop. 15–64.....	4.4	27
6.2.3 Computer software spending, % GDP.....	0.4	20
6.2.4 ISO 9001 quality certificates/bn PPP\$ GDP	72.6	1 ●
6.2.5 High- & medium-high-tech manufactures, %	31.8	34
6.3 Knowledge diffusion.....	41.5	23 ●
6.3.1 Royalty & license fees receipts, % service exports	2.9	20 ●
6.3.2 High-tech exports less re-exports, %.....	9.1	26 ●
6.3.3 Comm., computer & info. services exports, %.....	16.9	20 ●
6.3.4 FDI net outflows, % GDP	-0.0	112 ○

7 Creative outputs.....35.4 80

7.1 Intangible assets.....	32.3	112 ○
7.1.1 Domestic res trademark reg/bn PPP\$ GDP.....	60.0	28
7.1.2 Madrid trademark registrations/bn PPP\$ GDP	0.3	50
7.1.3 ICT & business model creation†.....	47.8	103 ○
7.1.4 ICT & organizational model creation†.....	43.8	100
7.2 Creative goods & services.....	40.4	51
7.2.1 Audio-visual & related services exports, %.....	0.8	10 ●
7.2.2 National feature films/mn pop. 15–69.....	1.1	73
7.2.3 Paid-for dailies, circulation, % pop. 15–69.....	5.0	85
7.2.4 Printing & publishing manufactures, %.....	1.4	65
7.2.5 Creative goods exports, %.....	2.6	28
7.3 Online creativity	36.3	46
7.3.1 Generic top-level domains (TLDs)/th pop. 15–69.....	5.5	57
7.3.2 Country-code TLDs/th pop. 15–69.....	51.2	35
7.3.3 Wikipedia monthly edits/mn pop. 15–69.....	1,612.7	58
7.3.4 Video uploads on YouTube/pop. 15–69.....	79.0	39

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