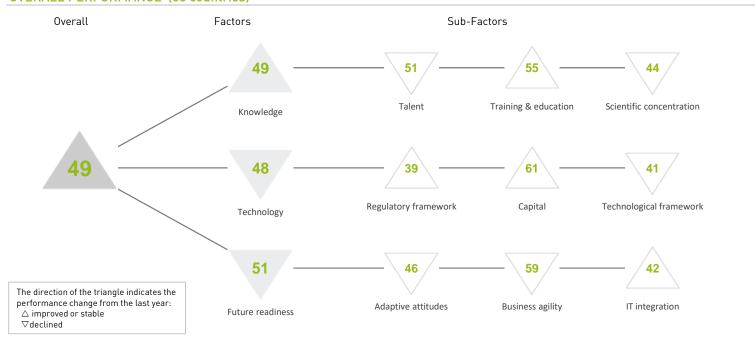
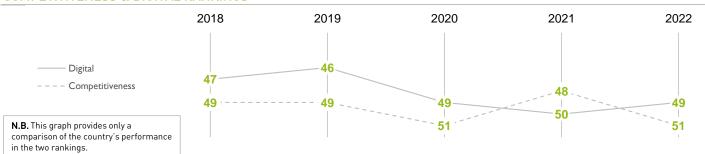
ROMANIA

OVERALL PERFORMANCE (63 countries)



OVERALL & FACTORS - 5 years	2018	2019	2020	2021	2022
OVERALL	47	46	49	50	49
Knowledge	45	47	53	52	49
Technology	44	45	48	47	48
Future readiness	57	51	49	49	51

COMPETITIVENESS & DIGITAL RANKINGS

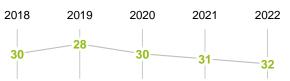


PEER GROUPS RANKINGS

EUROPE - MIDDLE EAST - AFRICA (40 countries)



POPULATIONS < 20 MILLION (36 countries)



ROMANIA

► Overall Top Strengths

ightharpoonup Overall Top Weaknesses

KNOWLEDGE

Sub-Factors	2018	2019	2020	2021	2022
Talent	45	48	51	50	51
Training & education	50	51	54	59	55
Scientific concentration	43	38	39	43	44

Talent	Rank
Educational assessment PISA - Math	44
International experience	55
Foreign highly-skilled personnel	51
Management of cities	56
Digital/Technological skills	22
Net flow of international students	42

Training & education	Rank
Employee training	47
Total public expenditure on education	51
Higher education achievement	55
Pupil-teacher ratio (tertiary education)	46
Graduates in Sciences	09
Women with degrees	52

	Scientific concentration	Rank
	Total expenditure on R&D (%)	51
	Total R&D personnel per capita	44
•	Female researchers	12
	R&D productivity by publication	21
	Scientific and technical employment	47
	High-tech patent grants	30
	Robots in Education and R&D	35

TECHNOLOGY

Sub-Factors	2018	2019	2020	2021	2022
Regulatory framework	39	41	43	40	39
Capital	62	59	61	61	61
Technological framework	31	36	37	40	41

Regulatory framework	Rank
Starting a business	38
► Enforcing contracts	18
Immigration laws	25
Development & application of tech.	50
Scientific research legislation	52
Intellectual property rights	49

	Capital	Rank
	IT & media stock market capitalization	52
	Funding for technological development	53
\triangleright	Banking and financial services	60
	Country credit rating	52
\triangleright	Venture capital	59
	Investment in Telecommunications	54

Technological framework	Rank
Communications technology	20
Mobile Broadband subscribers	55
Wireless broadband	39
Internet users	48
Internet bandwidth speed	08
High-tech exports (%)	37

FUTURE READINESS

Sub-Factors	2018	2019	2020	2021	2022
Adaptive attitudes	46	48	45	42	46
Business agility	60	46	53	57	59
IT integration	58	55	54	50	42

Adaptive attitudes	Rank
E-Participation	38
Internet retailing	40
Tablet possession	37
Smartphone possession	49
Attitudes toward globalization	52

	Business agility	Rank
\triangleright	Opportunities and threats	57
	World robots distribution	35
	Agility of companies	56
	Use of big data and analytics	37
\triangleright	Knowledge transfer	58
	Entrepreneurial fear of failure	36

	IT integration	Rank
	E-Government	48
>	Public-private partnerships	60
	Cyber security	32
	Software piracy	52
•	Government cyber security capacity	14
	Privacy protection by law content	38