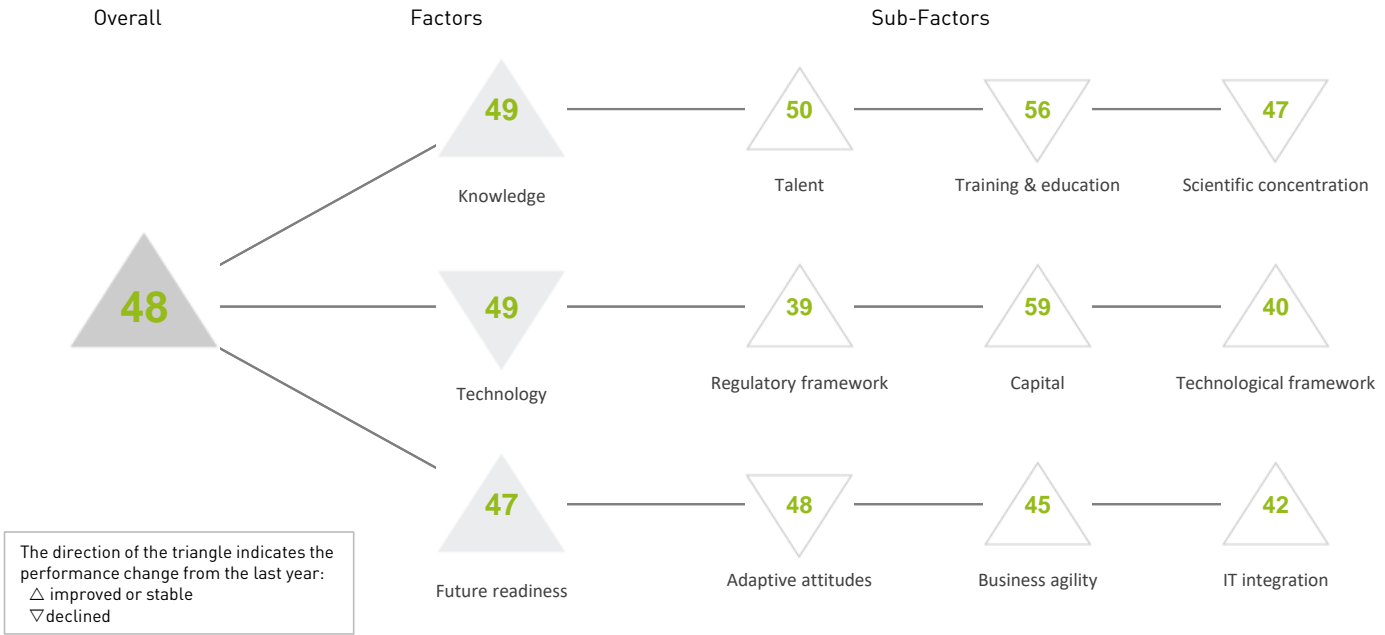


ROMANIA

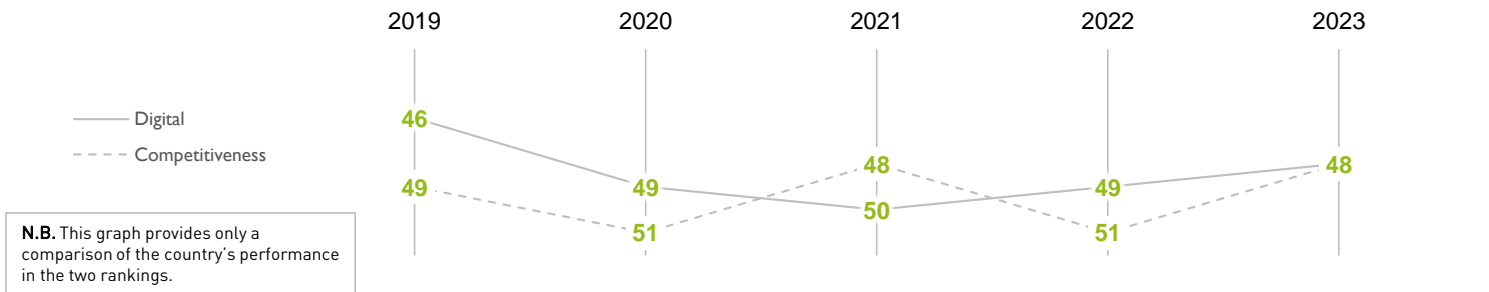
OVERALL PERFORMANCE (64 countries)



OVERALL & FACTORS - 5 years

	2019	2020	2021	2022	2023
OVERALL	46	49	50	49	48
Knowledge	47	53	52	49	49
Technology	45	48	47	48	49
Future readiness	51	49	49	51	47

COMPETITIVENESS & DIGITAL RANKINGS



PEER GROUPS RANKINGS

EUROPE - MIDDLE EAST - AFRICA (41 countries)



POPULATIONS < 20 MILLION (37 countries)



ROMANIA

► Overall Top Strengths

▷ Overall Top Weaknesses

KNOWLEDGE

Sub-Factors	2019	2020	2021	2022	2023
Talent	48	51	50	51	50
Training & education	51	54	59	55	56
Scientific concentration	38	39	43	44	47

Talent	Rank
Educational assessment PISA - Math	44
International experience	41
Foreign highly skilled personnel	48
Management of cities	54
Digital/Technological skills	35
Net flow of international students	39

Training & education	Rank
Employee training	42
▷ Total public expenditure on education	56
▷ Higher education achievement	55
Pupil-teacher ratio (tertiary education)	48
► Graduates in Sciences	11
Women with degrees	52

Scientific concentration	Rank
Total expenditure on R&D (%)	50
Total R&D personnel per capita	47
► Female researchers	11
R&D productivity by publication	22
Scientific and technical employment	48
High-tech patent grants	36
Robots in Education and R&D	37

TECHNOLOGY

Sub-Factors	2019	2020	2021	2022	2023
Regulatory framework	41	43	40	39	39
Capital	59	61	61	61	59
Technological framework	36	37	40	41	40

Regulatory framework	Rank
Starting a business	39
► Enforcing contracts	18
Immigration laws	27
Development & application of tech.	46
Scientific research legislation	51
Intellectual property rights	43

Capital	Rank
IT & media stock market capitalization	53
Funding for technological development	48
▷ Banking and financial services	57
Country credit rating	53
Venture capital	49
Investment in Telecommunications	54

Technological framework	Rank
Communications technology	34
▷ Mobile broadband subscribers	56
Wireless broadband	40
Internet users	49
► Internet bandwidth speed	04
High-tech exports (%)	36

FUTURE READINESS

Sub-Factors	2019	2020	2021	2022	2023
Adaptive attitudes	48	45	42	46	48
Business agility	46	53	57	59	45
IT integration	55	54	50	42	42

Adaptive attitudes	Rank
E-Participation	46
Internet retailing	43
Tablet possession	33
Smartphone possession	43
Attitudes toward globalization	55

Business agility	Rank
Opportunities and threats	44
World robots distribution	35
Agility of companies	41
Use of big data and analytics	37
Knowledge transfer	40
Entrepreneurial fear of failure	37

IT integration	Rank
E-Government	49
▷ Public-private partnerships	58
Cyber security	28
Software piracy	52
► Government cyber security capacity	14
Privacy protection by law content	38