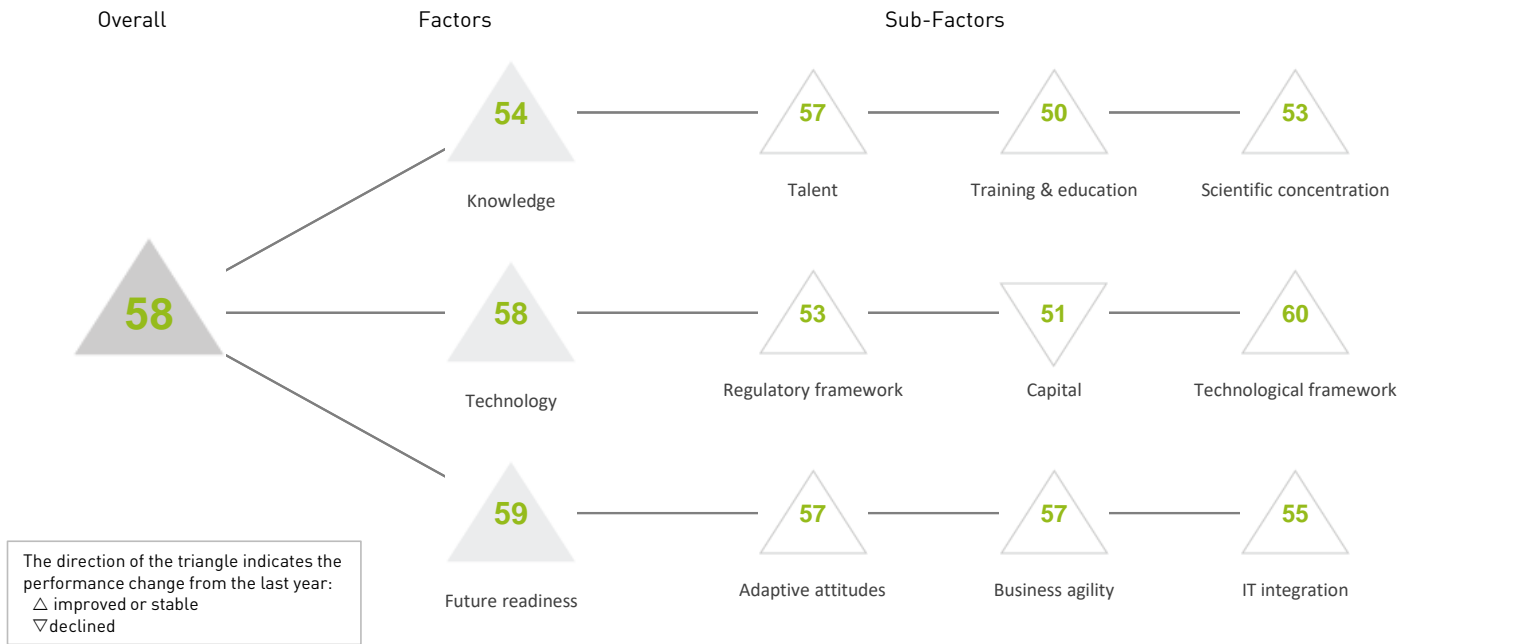


SOUTH AFRICA

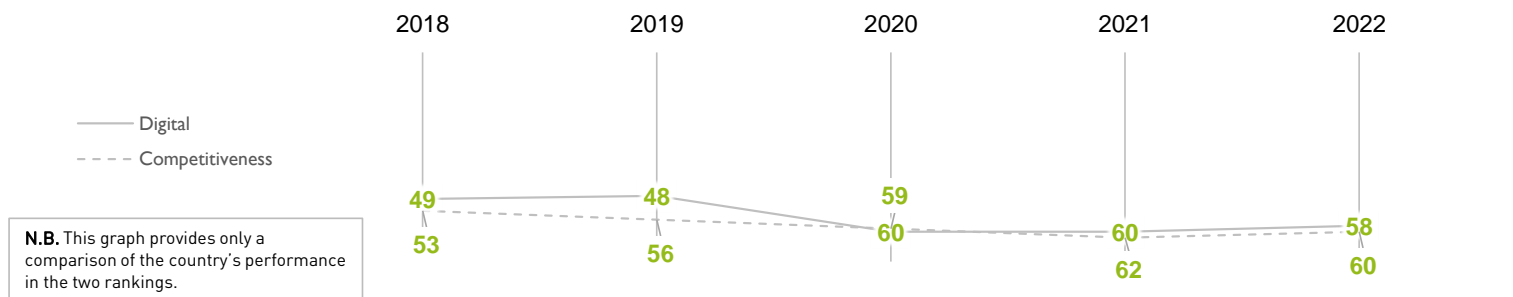
OVERALL PERFORMANCE (63 countries)



OVERALL & FACTORS - 5 years

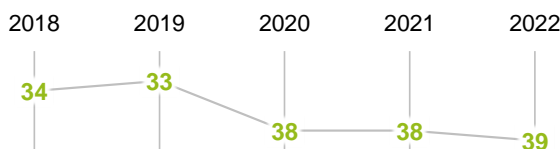
	2018	2019	2020	2021	2022
OVERALL	49	48	60	60	58
Knowledge	52	54	60	62	54
Technology	52	51	55	59	58
Future readiness	43	44	57	59	59

COMPETITIVENESS & DIGITAL RANKINGS

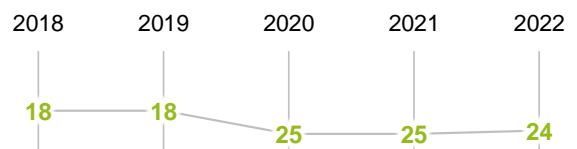


PEER GROUPS RANKINGS

EUROPE - MIDDLE EAST - AFRICA (40 countries)



POPULATIONS > 20 MILLION (27 countries)



SOUTH AFRICA

▶ Overall Top Strengths

▷ Overall Top Weaknesses

KNOWLEDGE

Sub-Factors	2018	2019	2020	2021	2022
Talent	54	49	59	58	57
Training & education	54	58	60	62	50
Scientific concentration	47	48	53	53	53

Talent	Rank	Training & education	Rank	Scientific concentration	Rank
Educational assessment PISA - Math	-	Employee training	55	Total expenditure on R&D (%)	44
International experience	53	▶ Total public expenditure on education	02	Total R&D personnel per capita	49
Foreign highly-skilled personnel	44	▷ Higher education achievement	60	▶ Female researchers	15
▷ Management of cities	61	Pupil-teacher ratio (tertiary education)	37	▶ R&D productivity by publication	25
Digital/Technological skills	56	Graduates in Sciences	56	Scientific and technical employment	-
Net flow of international students	34	Women with degrees	54	High-tech patent grants	56
				Robots in Education and R&D	40

TECHNOLOGY

Sub-Factors	2018	2019	2020	2021	2022
Regulatory framework	53	53	56	59	53
Capital	27	30	32	36	51
Technological framework	58	59	57	61	60

Regulatory framework	Rank	Capital	Rank	Technological framework	Rank
Starting a business	58	▶ IT & media stock market capitalization	07	Communications technology	59
Enforcing contracts	50	Funding for technological development	58	▷ Mobile Broadband subscribers	61
Immigration laws	55	Banking and financial services	54	Wireless broadband	42
Development & application of tech.	54	Country credit rating	56	▷ Internet users	61
Scientific research legislation	40	Venture capital	60	Internet bandwidth speed	54
Intellectual property rights	45	Investment in Telecommunications	30	High-tech exports (%)	55

FUTURE READINESS

Sub-Factors	2018	2019	2020	2021	2022
Adaptive attitudes	56	55	59	59	57
Business agility	38	40	58	59	57
IT integration	39	42	50	55	55

Adaptive attitudes	Rank	Business agility	Rank	IT integration	Rank
E-Participation	44	Opportunities and threats	55	E-Government	55
Internet retailing	56	World robots distribution	32	Public-private partnerships	59
Tablet possession	56	▷ Agility of companies	61	Cyber security	56
Smartphone possession	37	Use of big data and analytics	27	▶ Software piracy	20
Attitudes toward globalization	47	Knowledge transfer	48	Government cyber security capacity	46
		Entrepreneurial fear of failure	45	Privacy protection by law content	49