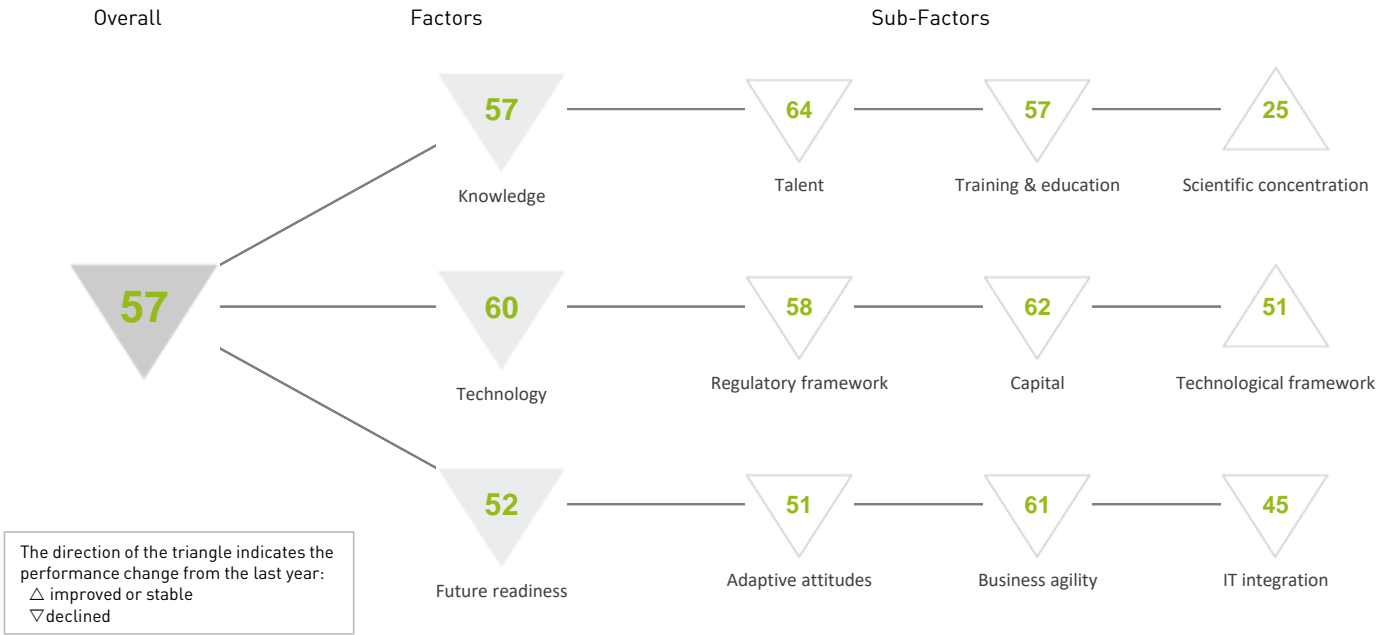


BRAZIL

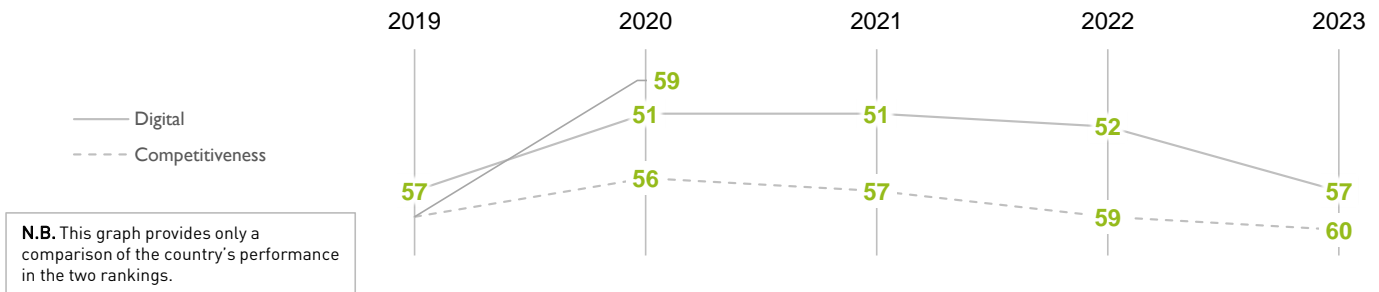
OVERALL PERFORMANCE (64 countries)



OVERALL & FACTORS - 5 years

	2019	2020	2021	2022	2023
OVERALL	57	51	51	52	57
Knowledge	59	57	51	51	57
Technology	57	57	55	55	60
Future readiness	43	43	45	47	52

COMPETITIVENESS & DIGITAL RANKINGS



PEER GROUPS RANKINGS

THE AMERICAS (9 countries)



POPULATIONS > 20 MILLION (27 countries)



BRAZIL

► Overall Top Strengths

▷ Overall Top Weaknesses

KNOWLEDGE

Sub-Factors	2019	2020	2021	2022	2023
Talent	61	62	63	62	64
Training & education	59	61	58	51	57
Scientific concentration	44	27	21	25	25

Talent	Rank	Training & education	Rank	Scientific concentration	Rank
Educational assessment PISA - Math	53	Employee training	56	Total expenditure on R&D (%)	35
▷ International experience	63	► Total public expenditure on education	12	Total R&D personnel per capita	19
▷ Foreign highly skilled personnel	61	Higher education achievement	54	► Female researchers	17
▷ Management of cities	61	Pupil-teacher ratio (tertiary education)	47	► R&D productivity by publication	07
▷ Digital/Technological skills	62	Graduates in Sciences	55	Scientific and technical employment	37
Net flow of international students	44	Women with degrees	50	High-tech patent grants	44
				► Robots in Education and R&D	17

TECHNOLOGY

Sub-Factors	2019	2020	2021	2022	2023
Regulatory framework	57	52	51	55	58
Capital	61	58	59	57	62
Technological framework	47	50	51	51	51

Regulatory framework	Rank	Capital	Rank	Technological framework	Rank
Starting a business	58	IT & media stock market capitalization	48	Communications technology	55
Enforcing contracts	41	Funding for technological development	60	Mobile broadband subscribers	37
Immigration laws	28	Banking and financial services	60	Wireless broadband	51
Development & application of tech.	59	Country credit rating	57	Internet users	50
Scientific research legislation	59	Venture capital	60	Internet bandwidth speed	37
Intellectual property rights	60	Investment in Telecommunications	36	High-tech exports (%)	45

FUTURE READINESS

Sub-Factors	2019	2020	2021	2022	2023
Adaptive attitudes	33	39	40	43	51
Business agility	58	41	42	52	61
IT integration	49	48	49	43	45

Adaptive attitudes	Rank	Business agility	Rank	IT integration	Rank
► E-Participation	11	Opportunities and threats	52	E-Government	43
Internet retailing	44	World robots distribution	19	Public-private partnerships	60
Tablet possession	56	Agility of companies	54	Cyber security	57
Smartphone possession	38	▷ Use of big data and analytics	61	Software piracy	36
Attitudes toward globalization	52	Knowledge transfer	61	Government cyber security capacity	26
		Entrepreneurial fear of failure	27	Privacy protection by law content	29