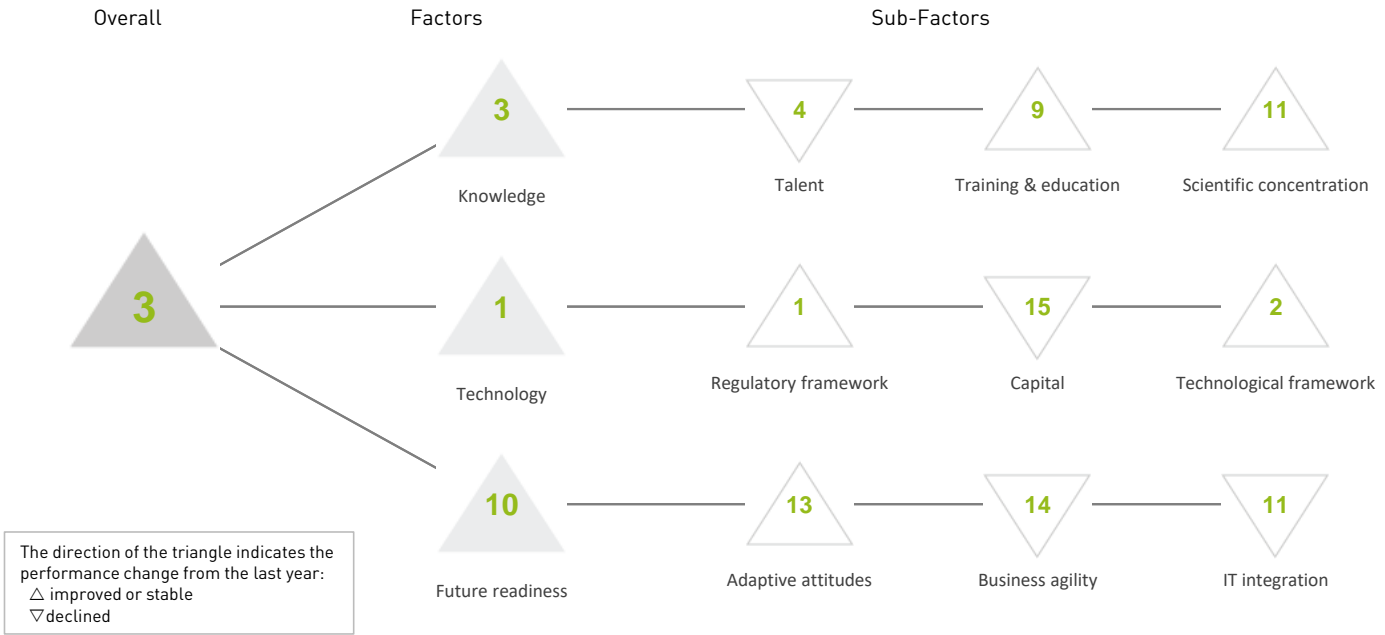


SINGAPORE

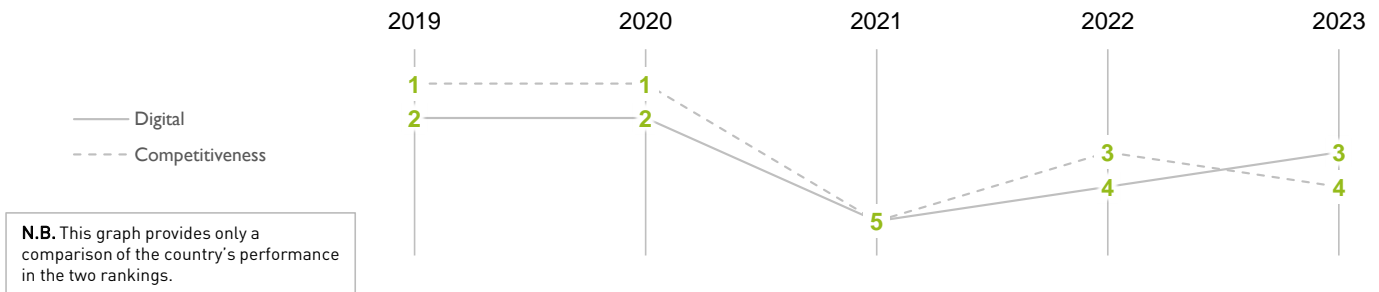
OVERALL PERFORMANCE (64 countries)



OVERALL & FACTORS - 5 years

	2019	2020	2021	2022	2023
OVERALL	02	02	05	04	03
Knowledge	03	02	04	05	03
Technology	01	01	03	01	01
Future readiness	11	12	11	10	10

COMPETITIVENESS & DIGITAL RANKINGS



PEER GROUPS RANKINGS

ASIA - PACIFIC (14 countries)



POPULATIONS < 20 MILLION (37 countries)



SINGAPORE

► Overall Top Strengths

▷ Overall Top Weaknesses

KNOWLEDGE

Sub-Factors	2019	2020	2021	2022	2023
Talent	01	01	02	03	04
Training & education	04	07	13	09	09
Scientific concentration	22	10	11	11	11

Talent	Rank
Educational assessment PISA - Math	02
International experience	11
Foreign highly skilled personnel	06
Management of cities	06
Digital/Technological skills	12
Net flow of international students	07

Training & education	Rank
Employee training	27
▷ Total public expenditure on education	62
► Higher education achievement	02
Pupil-teacher ratio (tertiary education)	26
Graduates in Sciences	03
Women with degrees	-

Scientific concentration	Rank
Total expenditure on R&D (%)	18
Total R&D personnel per capita	15
▷ Female researchers	45
R&D productivity by publication	42
Scientific and technical employment	22
► High-tech patent grants	01
Robots in Education and R&D	30

TECHNOLOGY

Sub-Factors	2019	2020	2021	2022	2023
Regulatory framework	02	01	05	01	01
Capital	08	11	14	11	15
Technological framework	01	01	02	02	02

Regulatory framework	Rank
Starting a business	03
► Enforcing contracts	01
▷ Immigration laws	49
Development & application of tech.	11
Scientific research legislation	08
Intellectual property rights	09

Capital	Rank
IT & media stock market capitalization	28
Funding for technological development	04
Banking and financial services	06
► Country credit rating	01
Venture capital	10
▷ Investment in Telecommunications	58

Technological framework	Rank
Communications technology	23
Mobile broadband subscribers	22
Wireless broadband	06
Internet users	25
► Internet bandwidth speed	01
High-tech exports (%)	03

FUTURE READINESS

Sub-Factors	2019	2020	2021	2022	2023
Adaptive attitudes	19	20	11	17	13
Business agility	06	11	12	09	14
IT integration	04	03	07	08	11

Adaptive attitudes	Rank
E-Participation	03
Internet retailing	24
Tablet possession	15
Smartphone possession	38
Attitudes toward globalization	13

Business agility	Rank
Opportunities and threats	16
World robots distribution	14
Agility of companies	24
Use of big data and analytics	11
Knowledge transfer	05
Entrepreneurial fear of failure	-

IT integration	Rank
E-Government	12
Public-private partnerships	08
Cyber security	08
Software piracy	17
Government cyber security capacity	10
▷ Privacy protection by law content	50