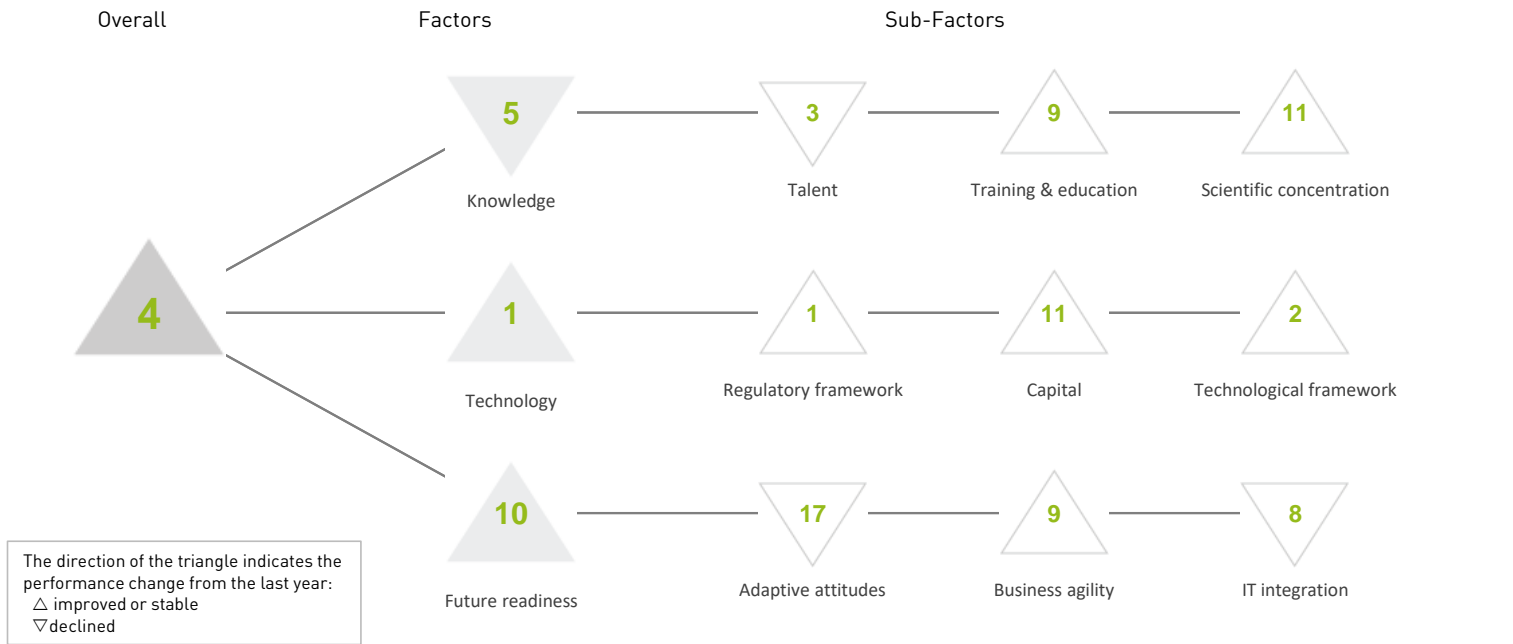


# SINGAPORE

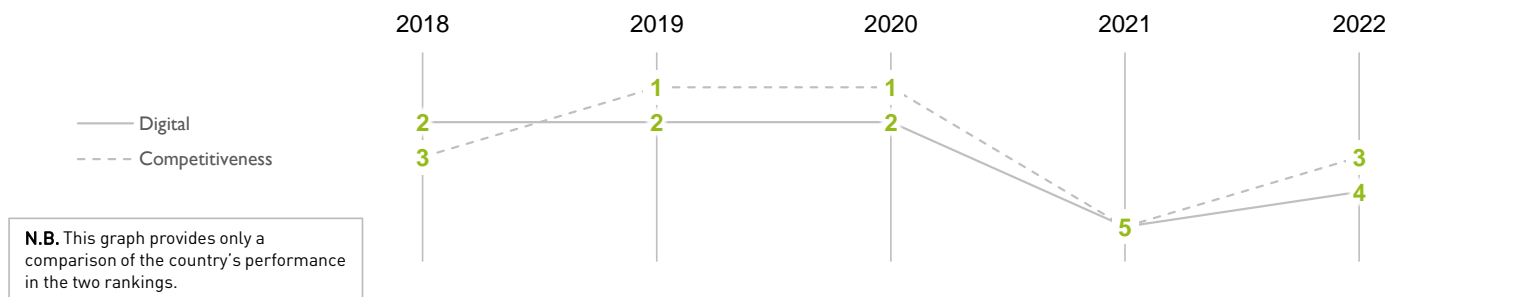
## OVERALL PERFORMANCE (63 countries)



## OVERALL & FACTORS - 5 years

	2018	2019	2020	2021	2022
OVERALL	02	02	02	05	04
Knowledge	01	03	02	04	05
Technology	01	01	01	03	01
Future readiness	15	11	12	11	10

## COMPETITIVENESS & DIGITAL RANKINGS

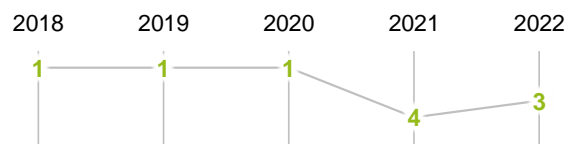


## PEER GROUPS RANKINGS

### ASIA - PACIFIC (14 countries)



### POPULATIONS < 20 MILLION (36 countries)



## SINGAPORE

▶ Overall Top Strengths

▷ Overall Top Weaknesses

## KNOWLEDGE

Sub-Factors	2018	2019	2020	2021	2022
Talent	01	01	01	02	03
Training & education	01	04	07	13	09
Scientific concentration	19	22	10	11	11

Talent	Rank
Educational assessment PISA - Math	02
International experience	05
Foreign highly-skilled personnel	05
Management of cities	04
Digital/Technological skills	09
Net flow of international students	07

Training & education	Rank
Employee training	24
▷ Total public expenditure on education	62
▶ Higher education achievement	02
Pupil-teacher ratio (tertiary education)	25
Graduates in Sciences	04
Women with degrees	-

Scientific concentration	Rank
Total expenditure on R&D (%)	20
Total R&D personnel per capita	14
▷ Female researchers	42
R&D productivity by publication	39
Scientific and technical employment	27
▶ High-tech patent grants	01
Robots in Education and R&D	29

## TECHNOLOGY

Sub-Factors	2018	2019	2020	2021	2022
Regulatory framework	02	02	01	05	01
Capital	08	08	11	14	11
Technological framework	01	01	01	02	02

Regulatory framework	Rank
Starting a business	03
▶ Enforcing contracts	01
▷ Immigration laws	43
Development & application of tech.	08
Scientific research legislation	04
Intellectual property rights	07

Capital	Rank
IT & media stock market capitalization	31
Funding for technological development	02
Banking and financial services	05
▶ Country credit rating	01
Venture capital	06
▷ Investment in Telecommunications	55

Technological framework	Rank
Communications technology	09
Mobile Broadband subscribers	19
Wireless broadband	12
Internet users	24
▶ Internet bandwidth speed	01
High-tech exports (%)	04

## FUTURE READINESS

Sub-Factors	2018	2019	2020	2021	2022
Adaptive attitudes	20	19	20	11	17
Business agility	18	06	11	12	09
IT integration	03	04	03	07	08

Adaptive attitudes	Rank
E-Participation	06
Internet retailing	26
Tablet possession	20
Smartphone possession	26
Attitudes toward globalization	07

Business agility	Rank
Opportunities and threats	15
World robots distribution	14
Agility of companies	10
Use of big data and analytics	11
Knowledge transfer	06
Entrepreneurial fear of failure	-

IT integration	Rank
E-Government	11
Public-private partnerships	02
Cyber security	06
Software piracy	17
Government cyber security capacity	10
▷ Privacy protection by law content	50